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Fifteenth Annual Edition

United States-German Economic Yearbook 1989

Deutsch-Amerikanisches Wirtschaftsjahrbuch

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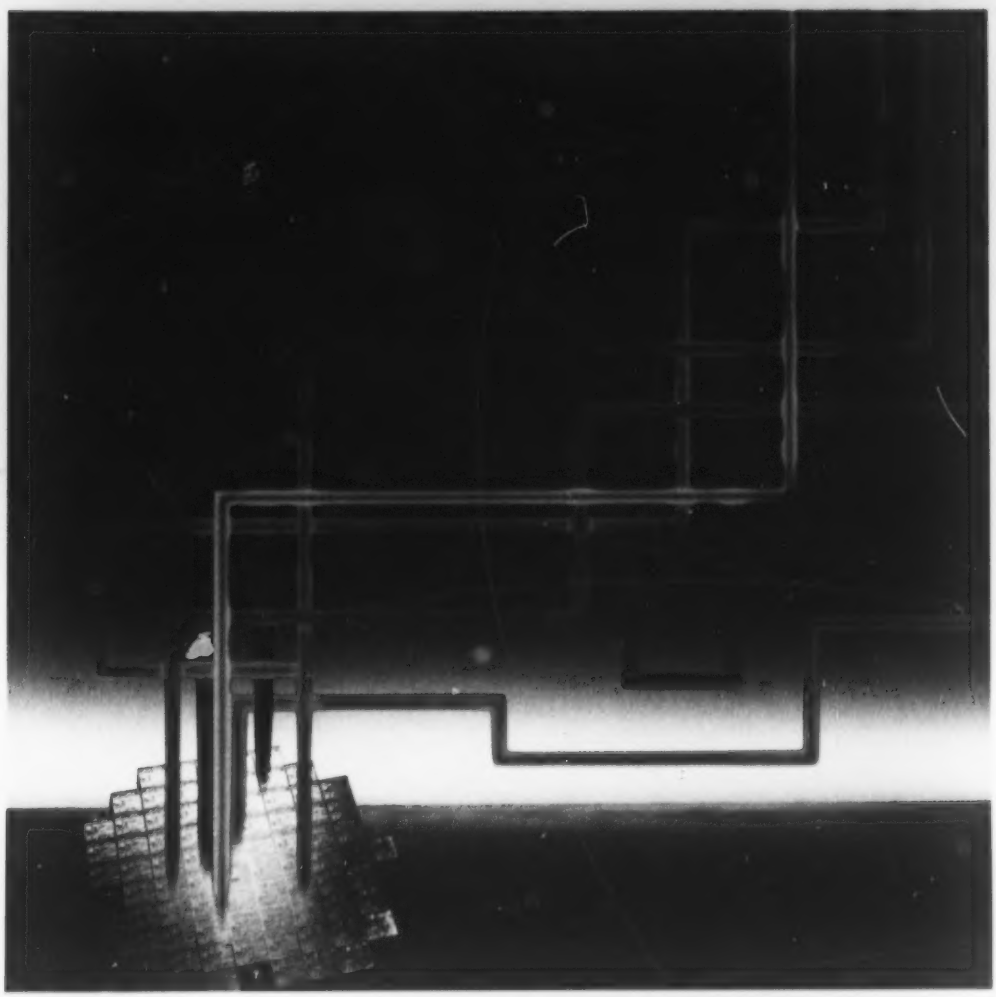

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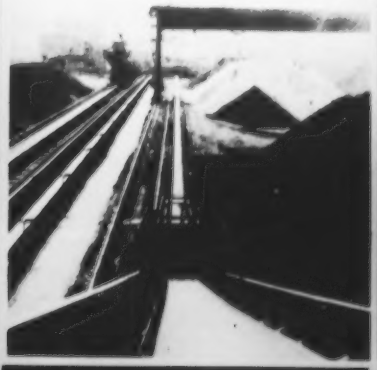

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Preface

Future historians will undoubtedly apply some evocative phrase to describe the upheavals that took place in Eastern Europe in 1989. For now, the Year of Freedom seems to be the favorite. Whatever the verbiage, though, the events of the past year have immutably transformed the political arena in Europe, and the collapse of Communist rule in these countries will inevitably have an impact on business and trade in the West as the reform process unfolds.

Although the historical changes in Eastern Europe understandably transfixed the world's attention in 1989, they also tended to overshadow the significant progress achieved in the last 12 months toward the economic unification of the European Community. If you could still find numerous skeptics in 1988 who doubted the will and ability of Western Europe's business and political leadership to forge a Community without borders, you will find precious few today who question either the capacity or the determination of Western Europe to create a single European market of just over 320 million people.

With the pace of EC integration accelerating, it has become correspondingly difficult to discuss many of the issues confronting individual EC economies, such as that of the Federal Republic of Germany, outside the context of the single European market. With this consideration in mind, we have introduced in the 1989 edition of our Yearbook a *1992* department, so that we may discuss some issues and opportunities involving European economic integration from both the U.S. and German perspective. I hope that this effort will add a useful new dimension to our publication.

In 1989, the United States and Germany witnessed their seventh consecutive year of economic expansion, with both countries performing beyond the expectations of earlier forecasts; Bonn's efforts to reduce its trade surplus with the United States produced results—for the second year in a row; and direct investment in each other's countries expanded. I believe it is no exaggeration to say that the tone and quality of economic relations between the United States and the Federal Republic have seldom been better, and I see no reason to expect that this situation will not continue into 1990.

At this time, I want to take the opportunity to express my appreciation to the distinguished American and German authors who have given so ably and generously of their time. I submit that their articles offer abundant testimony to the spirit of friendly competition, openness, and creativity that infuse the U.S.-German economic relationship with a unique character and vigor.

Werner Walbroel
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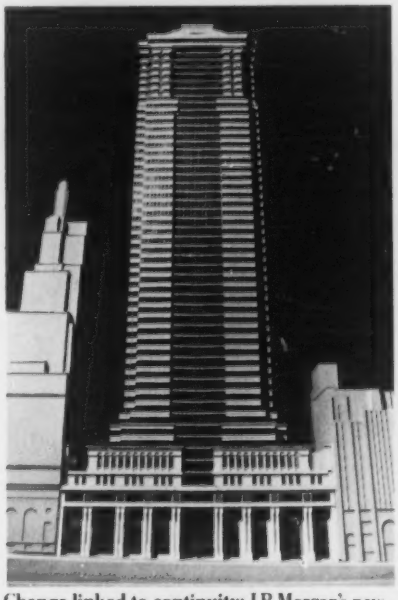

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Bericht ueber die Waehrungspolitik

Monetary Policy Report

Alan Greenspan
Chairman
Board of Governors of the
Federal Reserve System

Over the course of this year, the contours of the broad economic setting have changed. As a consequence, the stance of monetary policy also has shifted somewhat, although the fundamental objective of our policy has not. That objective remains to maximize sustainable economic growth, which in turn requires the achievement of price stability over time.

Early in the year, the Federal Reserve continued on the path toward increased restraint upon which it had embarked in the spring of 1988. At the time of our report to Congress in February of this year, I characterized the economy as strong, with the risks on the side of a further intensifying of price pressures. Labor markets had been tightening noticeably, heightening concerns that inflationary pressures might be building. Moreover, increases in food and crude oil prices were raising the major inflation indexes.

In view of the dimensions of the inflation threat, the Federal Reserve tightened policy further early this year. Additional reserve restraint was applied through open market operations, and the discount rate was raised 1/2 percentage point. The determination to resist any pickup in inflation also motivated the decision of the Federal Open Market Committee at its February meeting to lower the ranges for money and credit growth for 1989. This marked the third consecutive year in which the target ranges were reduced, and it underscored our commitment to achieving price stability over time.

Reflecting the economy's apparent strength and the tighter stance of policy, interest rates rose during the first quarter. Short-term market rates increased around 1 percentage point over the quarter, leaving them up more than 3 points from a year earlier, but long-term rates held relatively steady. The year-long rise in short-term rates had a marked impact on growth of the monetary aggregates, restraining the demand for money as funds flowed instead into higher-yielding market instruments.

...the fundamental objective of our policy...remains to maximize sustainable economic growth...

By the beginning of the second quarter, the outlook for spending and prices was becoming more mixed. Scattered indications of an emerging softening in economic activity began to appear, prompting market interest rates to pull back. Rates continued to fall as a variety of factors pointed to some lessening of price pressures in the period ahead. In particular, money growth weakened further, the underlying trend in inflation appeared to be less severe than markets had feared, the dollar continued to climb, and domestic demand slackened. Against this background, the Federal Reserve eased reserve condi-

tions, first in early June and again in early July. By mid-July, most short-term market rates had fallen to a bit below their year-end levels, and long-term interest rates were down as much as a full point, to their lowest levels in more than two years.

Economic activity apparently grew in the first half of this year at a rate somewhat below that of potential GNP. This stands in sharp contrast to the performance of the preceding two years during which growth proceeded at a pace that placed increasing pressures on labor and capital resources. Job creation has remained the hallmark of the current expansion, however. Even with the more moderate pace of economic growth in the first half of this year, nearly 1 1/2 million new jobs were added to payrolls. And this occurred apparently without triggering an acceleration in wages.

Prices did accelerate in the first six months of this year, but most of the increase may be transitory, related to supply conditions in food and petroleum markets. After a gradual pickup over the preceding two years, price inflation outside of food and energy held near its 1988 pace.

Excluding food and energy is one traditional way of estimating the *underlying* rate of inflation. Although there is some logic in abstracting from these prices, which are quite volatile and can be dominated over the short run by supply disturbances, this approach is incomplete. An alternate picture of near-term price-setting behavior can be gleaned by examining the components of prices, that is, the cost pressures facing firms and the behavior of their profits. Such an analysis reveals that, in manufacturing, much of the pickup in inflation thus far in 1989 is

An alternate picture of near-term price-setting behavior can be gleaned by examining the components of prices...

accounted for by higher unit energy and labor costs. The runup in world crude oil prices, which reflected a series of production accidents this spring as well as a degree of output restraint on the part of some OPEC oil producers, is the main reason for the increase in energy costs.

In contrast, movements in hourly compensation appear to have been quite moderate in the first half of this year, and the acceleration in unit labor costs largely reflected slower growth in productivity. Such a deceleration in productivity is typical as the pace of economic activity slows. But, given the relatively high levels of resource utilization, it also is possible that firms were forced to draw on less skilled workers than was the case earlier in the expansion. A significant moderation in the unit cost of imported materials, likely reflecting the higher value of the dollar on foreign exchange markets, provided a notable offset to these cost pressures. On balance, it appears that firms have continued to experience upward pressures on costs. The intensity of these pressures as related to energy inputs may well diminish in coming months, but it remains to be seen how other elements of the cost structure will evolve.

This approach, while helpful in understanding the interaction of prices and costs, does not tell us how an inflation cycle begins or why it may persist. Short-run inflation impulses can originate from a variety of sources, on both the demand and the supply sides of the economy. But over longer periods of time, inflation cannot persist without at least passive support from the monetary authorities.

The strength of the inflation pressures in 1988 and into 1989 was, of course, the motive for the progressive tightening of policy that the Federal Reserve undertook over that period. And the outlook for some reduction in these pressures owes in part to that policy restraint. The associated rise in market interest rates, beginning early last year, opened up wide *opportunity* costs of holding money assets and resulted in a sharp slowing of money growth. This was especially the case for liquid deposits, whose rates were adjusted upward only very sluggishly, providing depositors with strong incentives to economize on balances.

In addition to the effect of interest rates, several special factors played a role in slowing money growth and boosting velocity—that is, the ratio of nominal GNP to money. Probably the most important of these was the unexpectedly large size of personal tax liabilities in April. Many individuals evidently were surprised by the size of their liabilities, and drew down their money balances below normal levels to make the required payments. As the IRS cashed those checks, M2 registered outright declines.

The difficulties of the thrift industry also may have affected M2 growth. Late last year, as public attention increasingly focused on the financial condition of the industry and its insurance fund, FSLIC-insured institutions began to lose deposits at a significant rate. These deposit withdrawals were particularly strong in the first quarter of this year, and while most of the funds apparently were repositioned within M2—at commercial banks or money funds—this factor likely also had some damping effect on that aggregate.

More recently, growth of the broader monetary aggregates has picked up markedly. The restraint imposed by the earlier rise in market interest rates is fading, and households appear to be rebuilding their tax-depleted balances. As of May, M2 had risen at just a 1 percent rate from its fourth-quarter base, but the 6 3/4 percent rate of growth in June lifted the year-to-date increase to around a 2 percent rate, still somewhat below its 3 to 7 percent annual target zone. M3 rose at a 3 1/2 percent rate through June, at the lower end of its range. The latest data on these aggregates suggest that relatively rapid expansion has continued into July.

M1, which is the most interest-sensitive of the monetary aggregates, declined at a 3 1/2 percent rate through June. The unusual drop in M1 stemmed from sizable declines in NOW accounts and demand deposits. NOW accounts were reduced both by the large personal tax payments this spring and by the high level of interest rates, which drew savings-type balances instead toward market instruments or other types of accounts whose offering rates adjusted upward more quickly. The decline in demand deposits was related in part to a reduction in

balances that businesses are required to hold to compensate their banks for various services; for a set amount of services, higher market rates translate into lower required balances.

Monetary Policy and the Economy into 1990

Looking ahead at the remainder of 1989 and into 1990, recent developments suggest that the balance of risks may have shifted somewhat away from greater inflation. Even so, inflation remains high—clearly above our objective. Any inflation that persists will hinder the economy's ability to perform at peak efficiency and to create jobs. Consequently, monetary policy will need to continue to focus on laying the groundwork for gradual progress toward price stability. Such an outcome need not imply a marked downturn in the economy, and policy will have to be alert to any emerging indications of a cumulative weakening of activity. However, progress on inflation and optimum growth over time also require that our productive resources not be under such pressures that their prices continue to rise without abating. In light of historical patterns of labor and capital growth and productivity, this progress very likely will be associated with a more moderate, and hence sustainable, expansion in demand than we experienced in 1987 and 1988.

At its meeting earlier this month, the Federal Open Market Committee determined that a combination of continued economic growth and reduced pressures on prices would be promoted by growth of money and debt in 1989 within the annual ranges that were set in February. Moreover, it tentatively decided to maintain these same ranges through 1990.

The specified ranges, both for this year and next, retain the 4-percentage-point width first instituted for the broader aggregates in 1988. Considerable uncertainties about the behavior of money and credit remain, and the greater breadth allows for a range of paths for these aggregates as financial and economic developments may warrant. Uncertainties about the link between the narrow transactions aggregate, M1, and the economy have, if anything, increased, and the Committee again did not specify a range for this aggregate.

In view of the apparent variability, particularly over the short run, in the relationships between the monetary aggregates and the economy, policy will continue to be carried out with attention to a wide range of economic and financial indicators. The complex nature of the economy and the chance of false signals demand that we cast our net broadly—gathering information on prices, real activity, financial and foreign exchange markets, and related data.

While the monetary aggregates may not be preeminent on this list, they always receive careful consideration in our policy decisions. This is especially true when they exhibit unusual strength or weakness relative to past patterns and relative to our announced ranges. Thus, the very sluggish growth in M2 for the year to date was an important influence in the decision to ease policy in June and again in July. Velocity may vary considerably over a few quarters, but the provision of liquidity, as measured by one or another of the monetary aggregates, is an important factor in the performance of the economy over the shorter run, and over the long run broadly determines the rate of price increase.

Although M2 currently remains below its 1989 target zone, it has picked up substantially. The decline in interest rates in recent months, along with the continued growth of income, should provide support for that aggregate over the rest of the years, helping to lift it into the lower part of its target range. Growth in M2 likely will be augmented by a cessation of the special influences I noted earlier that depressed it in the first half of the year. In particular, we expect households to continue to rebuild their money balances after the tax-related drawdowns in April and May. Also, deposit withdrawals from thrift institutions have subsided, and enactment of legislation that restores full confidence in the industry would bode well for deposit flows into FSLIC-insured institutions.

Further steps in the resolution of the thrift industry difficulties also have implications for M3. With deposits

The Federal Reserve Bank of New York.

Marriner S. Eccles Federal Reserve Board Building, Washington, DC. Federal Reserve policy is focused on achieving more definite progress in reducing inflation in 1990.

flowing in again, thrifts will not have to rely so heavily or the Federal Home Loan Banks for their funding as they did earlier this year. Partly as a result, we expect M3 to strengthen from its rate of growth over the first half of the year, moving up into the middle of its target range by year-end.

Our outlook for debt growth foresees little change from the pace of the first two quarters. The broad credit measure that we monitor, the debt of domestic nonfinancial sectors, has grown at about an 8 percent rate this year, near the midpoint of its 6 1/2 to 10 1/2 percent range. We have little reason to expect its growth through the end of the year to be very different, implying some slowing from the pace of 1988. Nevertheless, the expansion of debt is likely to exceed nominal GNP growth again this year.

Growth of money and debt within the 1989 ranges is expected to be consistent with nominal GNP rising this year at a pace not too far from last year's increase, according to the projections of FOMC members and other presidents of Reserve Banks. These projections, however, incorporate somewhat more inflation and less real growth than we experienced in 1988. The central tendency of the projections of 2 to 2 1/2 percent real GNP growth over the four quarters of this year implies continued moderate economic growth throughout the year. For the year as a whole, these projections anticipate that growth is likely to be strongest in the investment and export sectors of the economy, with expansion of consumer expenditures and government purchases rather subdued.

A sectoral pattern of growth such as this would in fact serve the nation's longer-term needs by contributing to a better external balance. Fundamentally, improvement in our international payments position requires productivity-enhancing investment and a higher national saving rate. In this regard the federal government can play a significant, positive role by reducing the budget deficit.

The outlook for inflation this year, as reflected in the central tendency of the projections expressed at the FOMC meeting, is for a 5 to 5 1/2 percent increase in the consumer price index. A figure in this range would represent the highest annual inflation rate in the United States since 1981; this is a source of concern to the Federal Reserve. Yet this rate is below that experienced in the first six months. This implies a considerable slowing over the remainder of the year, reflecting earlier monetary policy restraint and a prospective moderation in food and energy prices.

Federal Reserve policy is focused on laying the groundwork for more definite progress in reducing inflation pressures in 1990, while continuing support for the economic expansion. The ranges provisionally established for growth of money and debt next year are consistent with these intentions. They allow for a noticeable pickup in money growth from that likely to prevail this year, should that be appropriate. If pressures on prices and in financial markets are less intense than in recent years, velocity would not be expected to continue to increase, and faster money growth, perhaps in the top half of the range, would be needed for a time to support economic growth. Conversely, if price pressures prove intractable, the ranges are low enough to permit the needed degree of monetary restraint.

Thus, although the 1990 ranges do not represent another step in the gradual, multiyear lowering of ranges, the Federal Reserve's intent to make further progress against inflation remains intact. Uncertainties about the outlook suggested a pause in the process of reducing the ranges; however, the Committee recognizes that our goal of price stability will require additional downward adjustments in these ranges over time. Of course, as we draw closer to 1990, the economic and financial conditions prevailing will become clearer, allowing us to approach our decisions on the ranges with more confidence. Hence, the current ranges for money and credit growth in 1990 should be viewed as very preliminary.

Fundamentally, improvement in our international payments position requires productivity-enhancing investment and a higher national saving rate.

The economic projections for 1990 made by the governors and Reserve Bank presidents center in a range of 1 1/2 to 2 percent real GNP growth and 4 1/2 to 5 percent inflation for next year. Naturally, as I've already noted, there are considerable uncertainties surrounding forecasts for 1990. In particular, developments in the external sector will depend in part on economic activity abroad, as well as on the efforts of U.S. firms to become more competitive in world markets. Domestically, performance will be affected by a large number of influences, including importantly the budget deficit.

Monetary Policy in Perspective

The Federal Reserve is committed to doing its utmost to ensure prosperity and rising standards of living over the long run. Given the powers and responsibilities of the

central bank, that means most importantly maintaining confidence in our currency by maintaining its purchasing power. The principal role of monetary policy is to provide a stable backdrop against which economic decisions can be made. A stable, predictable price environment is essential to ensure that resources can be put to their best use and ample investment for the future can be made.

In the long run, the link between money and prices is unassailable. That link is central to the mission of the Federal Reserve, for it reminds us that without the acquiesence of the central bank, inflation cannot take root. Ultimately, the monetary authorities must face the responsibility for lasting price trends. While oil price shocks, droughts, higher taxes, or new government regulations may boost broad price indexes at one time or another, sustained inflation requires at least the forbearance of the central bank. Moreover, as many nations have learned, inflation can be corrosive. As it accelerates, the signals of the market system lose their value, financial assets lose their worth, and economic progress becomes impossible.

Thankfully, this bleak scenario is not one that we in the United States are confronting. We do, however, face a difficult balancing act. The economy has prospered in recent years: the economic expansion has proven exceptionally durable, employment has surpassed all but the most optimistic expectations, and the underlying inflation rate, after coming down quickly in the early 1980s, has accelerated only modestly. But now signs of softness in the economy have shown up.

Accordingly, it is prudent for the Federal Reserve to recognize the risk that such softness conceivable could cumulate and deepen, resulting in a substantial downturn in activity. We also recognize, however, that a degree of slack in labor and product markets will ease the inflationary pressures that have built up. So our policy, under current circumstances, is not oriented toward avoiding a slowdown in demand, for a slowing from the unsustainable rates of 1987 and 1988 is probably unavoidable. Rather what we seek to avoid is an unnecessary and destructive recession.

The balance that we must strike is to support moderate growth of demand in the near term, while concurrently progressing toward our longer-run goal of a stable price level. Admittedly, the balance we are seeking is a delicate one. I wish I could say that the business cycle has been repealed. But some day, some event will end the extraordinary string of economic advances that has prevailed since late 1982. For example, an inadvertent, excess accumulation of inventories or an external supply shock could lead to a significant retrenchment in economic activity.

The balance that we must strike is to support moderate growth of demand in the near term, while concurrently progressing toward our longer-run goal of a stable price level.

Moreover, I cannot rule out a policy mistake as the trigger for a downturn. We at the Federal Reserve might fail to restrain a speculative surge in the economy or fail to recognize that we were holding reserves too tight for too long. Given the lags in the effects of policy, forecasts inevitably are involved and thus errors inevitably arise. Our job is to keep such errors to an absolute minimum. An efficient policy is one that doesn't lose its bearings, that homes in on price stability over time, but that copes with and makes allowances for any unforeseen weakness in economic activity. It is such a policy that the Federal Reserve will endeavor to pursue. □

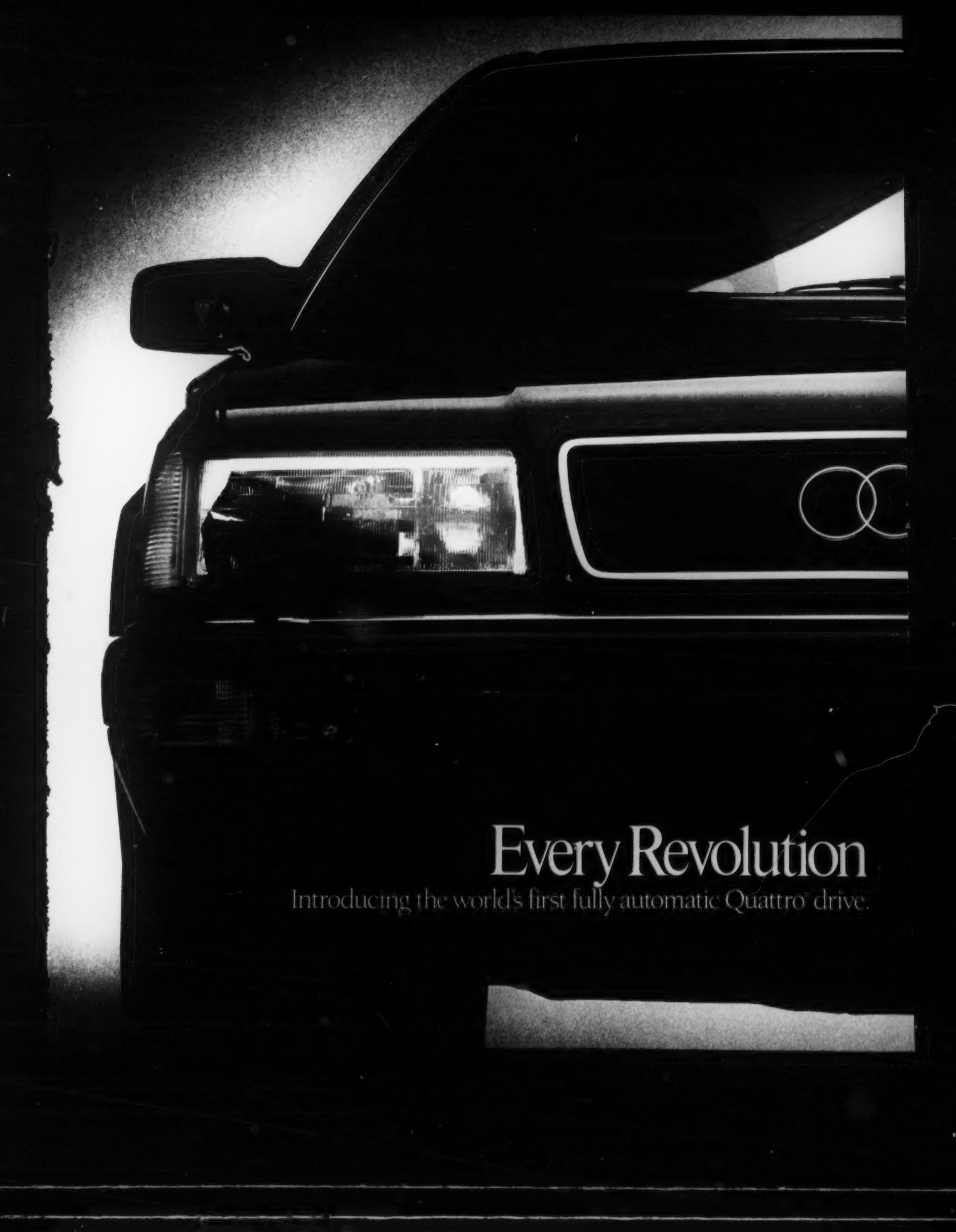
This article is dated June, 1989.

Ueberblick

Bericht ueber die Waehrungspolitik

Wir sind mit einem schwierigen Balanceakt konfrontiert: nach der ausserordentlich positiven Wirtschaftsentwicklung der letzten Jahre, die durch eine gewisse Bestaendigkeit, durch eine weit ueber die optimistischsten Voraussagen hinausgehende Beschaeftigungslage und durch eine seit Anfang der 80er Jahre—wenn auch bescheidenen—guenstigen Entwicklung der Inflationsrate charakterisiert ist, gibt es nunmehr Anzeichen fuer Abschwaechungen. Fuer die FED ist es ratsam, die Risiken zur Kenntnis zu nehmen, die die Abschwaechungstendenzen bis hin zu einem nennenswerten Rueckgang verstaerken koennen. Unsere Politik ist unter den derzeit gegebenen Bedingungen nicht darauf ausgerichtet, einen Nachfrageruckgang aufzufangen; wir wollen vielmehr eine unnoetige und destruktive Rezession verhindern. Wir muessen den Balanceakt vollziehen, kurzfristig eine gemaessigte Nachfragesteigerung vor dem Hintergrund unseres Langzeitziels, naemlich Schaffung eines stabilen Preisniveaus, zu initiieren.

Ich kann politische Einflussfaktoren als Ursache fuer eine wirtschaftliche Abschwaechung nicht ausschliessen. Auch wir von der FED koennen Fehler machen, indem wir eine moegliche Spekulationswelle in der Wirtschaft nicht unterdruecken oder nicht erkennen, dass wir die Reserven zu hoch oder zu lange halten. Angesichts der Zeitverzoegerungen, mit denen politische Grundlagen geschaffen werden koennen, die auf Vorhersagen beruhen, sind Fehleinschaetzungen unvermeidbar. Unsere Aufgabe ist es, derartige Fehleinschaetzungen auf ein Minimum zu begrenzen. Eine effiziente Politik ist diejenige, die ihre Orientierungspunkte nicht verliert, die ihr Preisstabilitaetsziel ueber die Runden bringt, die aber auch unvorhergesehene wirtschaftliche Abschwaechungen in Betracht zieht und dafuer Vorkehrungen trifft. Die FED bemueht sich, eine solche Politik zu verfolgen. □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Aktuelle Fragen der Waehrungspolitik

Current Issues in Monetary Policy

Karl Otto Poehl
President
Deutsche Bundesbank

The recent action by the Bundesbank to raise interest rates may strike many observers as a somewhat overly dramatic signal in view of the fact that the Federal Republic is in many respects operating within an almost optimal economic environment:

- The *business upturn* is now in its seventh year, and signs that it is about to slacken are still nowhere to be seen. On the contrary, in 1989 we can expect growth in the GNP of around 4 percent, well above the preceding year's 3.6 percent. We last experienced growth of this magnitude a decade ago. Only a few years ago, similar rates of expansion were considered impossible due to the limited production potential available; indeed, a continuation of recent expansion in demand would—over the short or long term—inevitably lead to capacity bottlenecks and finally to inflationary pressures as well. Our move to raise interest rates was primarily intended to prevent this from happening.
- The growth that we are currently experiencing in the Federal Republic and in most of Western Europe is creating an expansion of production capacity thanks to higher *fixed investment*. This will have the future effect of reducing upward pressure on costs and prices, while opening new potential for economic growth.
- The *employment* situation has also clearly improved. At the last report, the number of people with jobs had increased by 330,000 over last year, which amounts to a cumulative leap of well over one million since the end of 1983. The number of jobless will have declined by the end of the year by around 220,000. This is all the more remarkable in that the number of immigrants this year from East Germany and Eastern Europe and the Soviet Union has already amounted to almost 400,000 people. These included many young, highly motivated, and frequently well-trained men and women, who found it relatively easy to find jobs. In analyzing the unemployment figure, which clearly remains too high, we must also consider the role of various structural obstacles, particularly those that involve mobility and vocational skills.
- The economic expansion has still not shown any of the usual signs of rising prices. To be sure, the limits of capacity utilization are increasingly being reached, but *price increases* have been relatively moderate. At this time, the rate of inflation for private households

The growth that we are currently experiencing...is creating an expansion of production capacity...

stands at around 3 percent, but it would probably be 2.5 percent without the increase in excise taxes at the beginning of the year. In sectors directly affecting consumption, inflation has admittedly been a bit stronger, particularly in construction and agricultural producer prices.

The Merits of Preventive Action

As gratifying as the overall picture may be in comparison to earlier years of economic growth, it would be naive to conclude that there are no potential risks and therefore no need for monetary management. First, I would like to point out that we have steadily tightened the money supply since the middle of last year, which probably had something to do with the moderate rate of inflation up to now. In retrospect, this policy has generally been judged as correct and prescient, e.g., in the recent annual report of the International Monetary Fund.

At the time, however, every one of our interest rate moves was criticized at home and abroad, as in the case of our most recent move. But it is the merit of an independent central bank that it can do what it considers substantively necessary without having to consider political or other pressures on its policy.

Now, as to our recent interest rate hike, the bank's council believed that it would have been a mistake to defer action until inflation had already begun to move up, with higher prices already on the horizon. Rather, we were of the opinion that this was the right time to rein in monetary expansion so as to avoid overheating in the first place. Such a situation would then call for even more painful restrictive policies such as we experienced in the early 1980s.

In this connection, the Americans often refer to a *soft landing*, but that may not be the most appropriate expression. Instead, it might be preferable to talk about *comfortable flying*, since we really don't want to *land* but to *fly further*, i.e., to continue growth without endangering price stability. Our latest hike in interest rates will make an important contribution towards that end. We decided to take this relatively big step in order to consolidate the level of interest rates and prevent renewed speculation in the markets on expectations of higher rates.

Of course, others will also have to do their part, particularly with regard to fiscal and wage policy.

In the past, especially in 1986, but in 1987, too, we witnessed a pronounced increase in real incomes despite relatively low nominal rises in wages combined with cuts in the work week. The explanation: price stability and favorable terms of trade. Everyone gained, both business and wage earners. From the viewpoint of the Bundesbank, it is of prime importance that new contracts to be negotiated with the major unions in 1990 not lead to higher unit labor costs that could endanger price stability.

The Bundesbank is determined to maintain the strength of the mark and to keep inflation down. Above right, German Federal President Richard von Weinsaecker and, left, Karl Otto Poehl.

A Balanced View of Deficits

The favorable outlook for the Federal Republic's economy is admittedly clouded by what are mainly structural problems, an unemployment rate that is high relative to the vigorous economy, as well as high surpluses in our external accounts, which, contrary to the actual state of affairs in the economy, refuse not only to contract, but continue to expand. The current account surplus in 1989 will reach a record of around DM 115 billion and our foreign trade surplus will rise to about DM 145 billion.

In Washington at the annual meeting of the World Bank and the International Monetary Fund, there was the usual talk about the U.S. trade deficit and the corresponding Japanese and German surpluses. While this may have been appropriate a few years ago, we have to recognize some differences in the current situation:

...the Americans often refer to a "soft landing"... it might be preferable to talk about "comfortable flying"...

- In a world that is growing ever more closely together, with free markets for goods, services and capital, surpluses and deficits in the balance of payments are not in and of themselves harmful, provided they are kept within a limit that permits the markets to finance them without undue friction.
- The German surpluses are not the result of overly weak domestic growth: imports are also increasing handsomely. It would be unwise—and would have dire consequences for price stability—if we were to stimulate domestic demand even further in order to narrow our surpluses. As the *Financial Times* noted in September, "This is not the world in which Japan or West Germany should be asked to save less." Moreover, the structure of our surpluses has changed dramatically. Our trade surplus with the United States for this year will probably be halved from last year's DM 17 billion. I might note parenthetically that this

trend also holds true for America's account with the European Community as a whole: in fact, in the first half of 1989 the U.S. actually achieved a surplus—for the first time—of DM 1 billion versus a deficit of DM 9 billion in the first six months of 1988, not least of all due to the dollar's depreciation since 1985.

- The overall trend in Germany's external accounts in Europe is moving in the opposite direction. The surplus in our trade with the other members of the EC will very likely exceed last year's DM 81 billion, with estimates indicating that it will rise by some DM 15 billion. German surpluses will be particularly strong with those EC countries that have a higher rate of inflation than the Federal Republic, e.g., Italy, Spain and, most especially, Great Britain.

We are experiencing strong growth, ...which is presumably related to...the creation of the single European market of 1992.

- We are experiencing strong growth, not only in the Federal Republic but in most other parts of Western Europe, too, which is presumably related to expectations connected with the creation of the single European market of 1992. Imports of German capital goods will enable other countries to expand their production capacity and to keep their inflation at a lower level than would otherwise be possible. To be sure, this is occurring at the price of growing current account deficits, which, however—thanks to higher interest rates—are being financed seamlessly through capital imports, in other words, the savings of surplus countries. *Over-financed* might be a more appropriate term, if you look at exchange rates and the strong increase in the currency reserves of countries with trade deficits. Paradoxically, the currencies of these countries, which have the highest inflation rates in Europe as well, have appreciated in real terms against the German mark.

Viewed from this perspective, too, the decision to raise our interest rates is the right one. It will strengthen the deutschmark and—insofar as other central banks follow suit—contribute to bringing demand elasticity more nearly into a true relationship with real and potential capacity.

The Deutschmark and Overall Monetary Stability

An appreciation of the deutschmark, especially *vis-a-vis* the currencies of countries with high inflation rates, would be an appropriate reaction to the host of problems involving deficits. The depreciation of the mark in the last two years (at least in real terms versus the dollar as well as against a number of other currencies) is not consonant with the fundamentals or the goal of reducing external causes of disequilibrium. Intervention in the currency markets, which has assumed extraordinary dimensions in the past few weeks and months, and created a huge increase in the deutschmark reserves of foreign central banks, will have, if at all, only a temporary impact.

The German Bundesbank in Frankfurt.

Therefore, the latest interest rate hike by the Bundesbank is consistent with statements on currency policies that have been made in Washington by finance ministers and central bank presidents of the G-7 nations, and with the wishes of countries who have tried to prevent an overly sharp appreciation of their currencies over the last few months by intervening with heavy purchases of deutschmarks.

The Bundesbank believes that a re-alignment of the European Monetary System (EMS), a step that is attracting a growing number of advocates in the Federal Republic, would contribute to stability. But we must recognize that the leading countries in the EMS have rejected this for the time bering as a means of reducing external disequilibrium.

In practice, their attitude reflects the feeling that we are already living in a currency union, which is defined as a zone of firm exchange rates and free capital traffic. At its core, the EMS has traveled farther along this route than most people are aware. But the result of an integrated market with firm exchange rates and liberalized money and capital transfers is inevitably tantamount to a loss of economic, financial, and monetary autonomy, which is certainly the main reason that Great Britain has not yet joined the EMS.

As the strongest currency in this group, the deutschmark plays a leading role, one which we have never sought but must assume in the course of our responsibilities. The goal pursued by the Bundesbank in the fulfillment of that role—embodied in our recent decision to raise interest rates—is monetary stability in the Federal Republic of Germany and—under prevailing conditions—in Europe. □

This article is dated October 6, 1989.

Ueberblick

Aktuelle Fragen der Waehrungspolitik

Auch im siebten Jahr des wirtschaftlichen Aufschwungs sind keine Zeichen der Ermuedung zu entdecken. Im Gegenteil, in diesem Jahr ist ein Wachstum des realen Bruttosozialprodukts von mehr als 4,8% (1989 = 3,6%) zu erwarten. Am Arbeitsmarkt hat sich die Lage deutlich gebessert. Die Zahl der Erwerbstaetigen hat weiter zugenommen und ist seit Beginn der Aufwaertsentwicklung Ende 1983 um mehr als 1 Million gestiegen. Es sind bisher keine Zeichen einer Ueberhitzung des Preisklimas festgestellt worden, obwohl die Kapazitaetsgrenzen zunehmend erreicht sind.

Trotz des positiven Gesamtbildes dieser Hochkonjunktur gibt es Stabilitaetsrisiken und somit geldpolitischen Handlungsbedarf. Es waere nach Auffassung des Zentralbankrats ein Fehler gewesen, mit einer Zinsanpassung erst auf Preissteigerungsraten zu warten.

Die guenstige Wirtschaftsentwicklung der Bundesrepublik wird durch strukturelle Probleme getruebt: im Vergleich zur positiven Konjunkturentwicklung gibt es eine relativ hohe Zahl von registrierten Arbeitslosen, ferner hohe aussenwirtschaftliche Ueberschuesse. Anlaesslich der Jahrestagung von IWF und Weltbank in Washington war von dem amerikanischen Handelsbilanzdefizit und den japanischen und deutschen Ueberschuessen die Rede. Dazu muessen heute zwei Faktoren beruecksichtigt werden: In einer Welt, die durch zunehmende gegenseitige Abhaengigkeit charakterisiert ist, sind Ueberschuesse oder Defizite im Gesamtbild der Zahlungsbilanz zu betrachten. Ausserdem sind die deutschen Ueberschuesse nicht das Ergebnis eines zu schwachen binnenwirtschaftlichen Wachstums, denn auch die Importe haben kraeftig zugenommen. Die Struktur der Ueberschuesse hat sich sehr veraendert, der deutsche Ueberschuss im Aussenhandel mit den USA hat sich deutlich verringert. Die Entwicklung gegenueber den europaeischen Handelspartnern geht dagegen in die umgekehrte Richtung: der deutsche Aussenhandel mit den EG-Staaten duerfte das Vorjahresergebnis von 81 Milliarden DM noch uebertreffen.

Eine Hoeherbewertung der DM an den Devisenmaerkten waere eine angemessene Reaktion auf die Ueberschussproblematik. Die Abwertung der DM waehrend der letzten zwei Jahre in "real terms" gegenueber dem Dollar und anderen Waehrungen entspricht nicht dem Wunsch nach einer Verringerung des aussenwirtschaftlichen Ungleichgewichts. Eine Realignment im EWS waere aus der Sicht der Bundesbank stabilitaetspolitisch wuenschenswert. Die wichtigsten EWS-Partner haben sich jedoch fuer absehbare Zeit einer Wechselkursaenderung als Anpassungsinstrument verschlossen. Der DM als staerkste Waehrung in einem kuenftigen integrierten EG-Markt kommt unbeabsichtigt eine Fuehrungsrolle zu. In dieser Verantwortung verfolgt die Bundesbank als Ziel: monetaere Stabilitaet in der Bundesrepublik und—unter den gegebenen Umstaenden —in Europa. □

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German-American Economic Relations: Constructive Cooperation over Many Years

Helmut Haussmann
Minister of Economics
Federal Republic of Germany

Describing economic relations between countries may well be a worthwhile exercise: to what extent are their respective economies penetrating each other? What are the implications of bilateral ventures? How are their companies doing in competition with each other?

But is that all? Surely not.

In a world that has been set in motion, there are so many new challenges to be taken up, so many demands to be looked into and so many problems to be solved that bilateral relations are almost dwarfed, losing apparently some of their importance.

Still, they continue to form the nucleus of a cooperation potential that can go beyond national frontiers, stretch into regional groupings and establish its place in the international arena, economically and hence politically. In doing so it will live up to the new global responsibilities.

Healthy Balance in U.S.-German Trade

German-American visible trade has long presented a familiar picture: our German statistics show that there has been a more or less steady growth of German exports to the United States. Since 1986 there has been some decline, but in the first half of 1989 exports seem to be on the rise again.

German imports from the United States follow a similar path. But since 1988 imports have been rising strongly and have therefore clearly reduced our surplus. It fell rather rapidly from its peak in 1986 of roughly DM 28 billion to around DM 16 billion in 1988. Statistics for the first half of 1989 show that this trend has become even stronger. That will mean a further decline of the German surplus.

If we look at the bilateral exchange of services, we find that there has been a considerable German surplus, with a peak in 1985 that has also come steadily down to 16 billion in 1988.

Taking together the field of services, the traditionally negative German balance on transfers and our surplus on

Growing imports from the United States clearly show the attractiveness of foreign products ...

trade account, we find our overall surplus in the current account has been steadily shrinking, from DM 48 billion in 1986 to DM 32 billion in 1988.

While I am not too happy about, for example, German exports declining, I do realize that this is part of the international adjustment process which we are all agreed is absolutely necessary. Growing imports from the United States clearly show the attractiveness of foreign products,

Brooklyn-Port Authority Marine Terminal. The German trade surplus with the United States has fallen rapidly from its peak in 1986.

even if exchange rate developments have also had something to do with it.

And if we look at the more specific field of tourism, we find that since 1985 Germans have spent clearly far more on travel in the United States (1988: DM 2.4 billion) than Americans have left in the Federal Republic of Germany (DM 1.5 billion). And this trend has continued to grow in the first half of 1989.

The United States is a great place for tourists to see; I know that from my own experience.

There can also be no doubt that German investors have obviously discovered the United States as an interesting place to make their money work. In 1986 Germans invested DM 8 billion, in 1987 DM 7.5 billion, and in 1988 DM 6.6 billion (net figures). This trend has been continuing right into 1989.

The United States holds a traditional first place in the long list of countries with German industrial involvement. It may well be that the American Canadian Free Trade Area with its huge market potential has been of added attraction for German direct investment. There are, however, also some concerns: the Exon-Florio amendment which is being discussed in Congress might introduce a more restrictive phase for foreign investment in the United States: it requires licencing for investment in national security-related corporations. German industry and we would definitely regret if there were a break with the traditional openness of the United States for foreign investment.

U.S. investment in the Federal Republic of Germany has been picking up again after some considerable withdrawals in recent years. I take that as an indication of new American interest in the strong German economy. Foreign capital is definitely welcome in my country. There are no restrictions. Also, investment in the Federal Republic means a foothold in the single European market!

The Pan-European Dimension

Analyzing German-American economic relations would not be complete if I were to leave out the fact that the Federal Republic is also part of European integration, is part of the Community of Twelve. And therefore our relations with the United States also reach into Europe and vice versa, as its most important economic and trading partner.

European integration has always enjoyed the strong political support of U.S. Administrations and has come to regard the evolving transatlantic partnership as both strong and durable. And I am certain this is true also of the United States when it thinks of Europe.

The creation of a truly unified market—with more than 320 million inhabitants—will be an accomplishment of truly historic dimensions.

Of course, there have been problems and conflicts, some more difficult than others, some rather persistent evergreens. There can be no doubt that this will be so also in the future. Strong economies with world-wide ramifications and varying interests are bound to get into each other's way now and then. That in itself is not surprising or particularly worrisome.

What counts is the readiness—on both sides of the Atlantic—to come to grips even with thorny issues and to tackle them with creative thinking and in a spirit of open-mindedness. That is the stuff of which proper crisis management is made. And Europeans as well as Americans have developed sufficient routine in dealing with difficulties along the roads of trade and investment, across the Atlantic or within the General Agreement on Tariffs and Trade (GATT).

So when we read in the press about trade wars breaking out or getting worse, of retaliation being laid at each other's doors, this is often couched in extreme language—just to mention the fields of airbus, agriculture, and trade laws. They must not be taken as making up the whole picture; they should really be seen against a firmly established background of a basic consensus on multilateralism, a traditional understanding of and respect for the principles of free enterprise, competition, trade and the benefits of an international division of labour.

This underlying set of shared values will also have to be drawn upon in the future when it comes to the full completion of the single European market with its goal of complete freedom of movement for people, capital goods and services.

The creation of a truly unified market—with more than 320 million inhabitants—will be an accomplishment of truly historic dimensions. Its boldness and far-reaching consequences can only be compared to the time when the original European Economic Community was founded, many years ago. With the *sensational* single market catching the imagination of the world, we must make sure that its achievement will be accompanied by an

equally *sensational* set of harmonized, transparent rules that are worthy of one single market, where everybody may buy and sell, and *not of a closed shop.*

With that objective in mind we must tackle the many actions necessary to establish the foundation for such a market. The Community simply cannot afford to put up walls around its market. A little less than 50 percent of our trade, for example, is related to countries outside the EC. Other members are in a similar position. Does that not argue for a *must* as far as open-mindedness is concerned?

It may well be, and there have been recent examples, that the Europeans will want to do things *their way.* Is that wrong? Or will a compromise do, according to which, as in the case of the much criticized broadcasting directive, an element of pragmatic flexibility has been injected into the regulations decided? By that I mean that the arrangement decided on constitutes a political commitment but is not legally binding. Members of the Commission have clearly stated that, as a result, the implementation of the broadcasting directive cannot be enforced by taking it to the European Court of Justice. I am sure this will take care of the concerns voiced by countries outside the Community.

What we need as we look ahead is a continuous unemotional and frank dialogue across the Atlantic. That will be of enormous help to us Europeans as we go through the teething troubles of establishing the single market; it will also be useful to our partners in the world as they are about to pursue regional trade objectives.

A Broad International Focus

After all, there are also other international trade problems that need attention. Take protectionism, for example. It has tended to come along in various forms: open safeguard action through quotas or higher tariffs, so-called voluntary export self-restraint, other non-tariff barriers (such as abuse of standards or buy-national policies), market access limited by hidden barriers, imposition of restrictions for reasons of national security.

It is true, countries and politicians have begun to learn the lesson of protectionism: namely that a protectionist course by one party will quickly be hit by the boomerang of trade restrictions from the other party. This fever will spread and the overall effect can be disastrous.

Learning to know about these intricacies has done much to draw countries to the negotiating table of the Uruguay Round of trade negotiations, with the United States and the Community among the front players. It has induced them even to make it a point of adding agriculture to the agenda, described by former U.S. Trade Representative Bill Brock as the most durable source of conflict between the United States and the Community.

...agriculture...described by former U.S. Trade Representative Bill Brock as the most durable source of conflict between the United States and the Community.

The need to remove obstacles to trade, be they tariff or non-tariff barriers, to agree on more effective dispute settlement procedures and a workable safeguard clause, to establish reliable ways for coping with trade-related investment measures (trims) and for protecting property rights (trips) are truly challenging tasks for the international business community.

The United States holds a traditional first place in the long list of countries with German industrial involvement.

One question becomes more and more important even though it is not on the agenda of the negotiations: will the United States really be willing, and will it also be in a position, to comply effectively with multilateral discipline? So that it will be worthwhile strengthening it?

All these problems will require the ingenuity, good will and practical craftsmanship of international negotiators especially of Europe and of the United States if the single most important event of international trade policy, the Uruguay Round, is to be successful.

In other words, the transatlantic responsibilities of Europe and the United States are reaching well into the international trade scene. I am certain that this will broaden further the outlook of both Europeans and Americans.

Far-Reaching International Challenges

We must not lose sight of the fact that other countries and regions, too, are beginning to play a more active role in international trade policy. The Free Trade Agreement

U.S. fixed investment in Germany has been picking up again. Above, Digital Equipment's German headquarters in Munich.

between the United States and Canada firmly links both countries' markets: a formal step following reality. We understand the overriding interests of both countries and certainly hope that the large new trade area will be an open and outward-looking entity.

Strong economies with world-wide ramifications and varying interests are bound to get into each other's way now and then.

Another new development is the type of closer cooperation envisaged for countries in the Pacific, following the initiative by Australian Prime Minister Bob Hawke. We are watching that part of the world with great interest and there, too, hope for open-mindedness.

In both instances it has been argued that these *regionalisms*, and there may be more to come in the future, are a more or less direct result of the Community's decision to establish the single market. In other words, that one has provoked the other.

I do not think one can quite compare these movements. It has been quite clear from the outset that for the Community the ultimate goal of European integration will be political union, to be reached through a number of phases such as a single market and monetary union. It is a long process and will take years to complete, but come it will. There can be no doubt on that score.

There are other very far-reaching international challenges: developments in the East European countries have gripped our attention. The sensational opening of some of these countries does not just mean trade, joint ventures and investment, important as they may be for all trading partners. It also means familiarizing these countries, among other things, with market economy principles, rules of competition and pricing as well as international cooperation. In other words, introducing them to our international trading system and integrating them into its world. But don't forget: this comes on top of such *unsolved challenges* as the indebtedness of the developing countries, their burning interest to industrialize, to achieve higher standards of living and to attain at least some degree of prosperity.

Taken together, these are formidable tasks indeed. They demonstrate the interdependence of all countries, in

...for the Community the ultimate goal of European integration will be political union,...

fact of the whole world. To live up to them will require international resourcefulness, economic and financial strength as well as patience and perseverance. Many years of practical experience in the arts of cooperation and compromise shared between Europeans and Americans have taught us that the transatlantic ties are woven into a fabric of strength and reliability that is just right for these tasks. □

Ueberblick

Deutsch-amerikanische Wirtschaftsbeziehungen: Konstruktive Zusammenarbeit ueber viele Jahre

In einer Welt, die in Bewegung geraten ist, gibt es vielfaeltige neue Herausforderungen, die anzunehmen sind, vielfaeltige Fragen, die auf eine Antwort harren, vielfaeltige Probleme, die es zu loesen gilt. Auch wenn bilaterale Beziehungen demgegenueber bedeutungslos erscheinen moegen, bilden sie doch den Kern fuer eine ueber nationale Grenzen weit hinausgehende Zusammenarbeit bis hin zu den neuen globalen Verantwortlichkeiten.

Die deutsch-amerikanischen Wirtschaftsbeziehungen sind traditionell hervorragend, der deutsche Handelsbilanzueberschuss gegenueber den USA konnte in den letzten Jahren nennenswert reduziert werden, ebenso der Ueberschuss bei den Dienstleistungen. Die deutschen Investoren haben die USA als Anlageland entdeckt, die US-Investitionen in der Bundesrepublik sind wieder im Ansteigen begriffen. Die deutsch-amerikanischen Wirtschaftsbeziehungen sind auch von Bedeutung fuer die europaeische Integration. Der offene und frei von Emotionen gefuehrte transatlantische Dialog ist von grossem Wert fuer die Schaffung eines europaeischen Binnenmarkts.

Es gibt eine Reihe internationaler Probleme, die es konsequent anzugehen gilt. Protektionistische Tendenzen, die Beseitigung von Handelshemmnissen, effektivere Verfahren zur Beilegung von Meinungsverschiedenheiten, eine handhabbare Schutzklausel, die Entwicklung von Moeglichkeiten zum besseren Schutz von Investitionen und Eigentumsrechten sind Herausforderungen an die gesamte internationale Wirtschaftsgemeinschaft.

Dabei hat die transatlantische Verantwortung der Europaeer und Amerikaner eine wesentliche Rolle auf der internationalen Handelsbuehne zu spielen. Es darf auch nicht ausser acht bleiben, dass andere Laender und Regionen zunehmende Aktivitaeten in der Handelspolitik entwickeln. Das Freihandelsabkommen zwischen den USA und Kanada bindet beide Maerkte enger aneinander, und innerhalb der Pazifikstaaten ist eine zunehmend engere Zusammenarbeit zu beobachten.

Es gibt eine Reihe weitreichender internationaler Herausforderungen: die Entwicklungen in Osteuropa verdienen unsere besondere Aufmerksamkeit. Ganz oben auf der internationalen Tagesordnung stehen die nach wie vor ungeloesten Probleme wie die Verschuldungslage der Entwicklungslaender, ihr vitales Interesse an industriellem Fortschritt und hoeherem Lebensstandard. □

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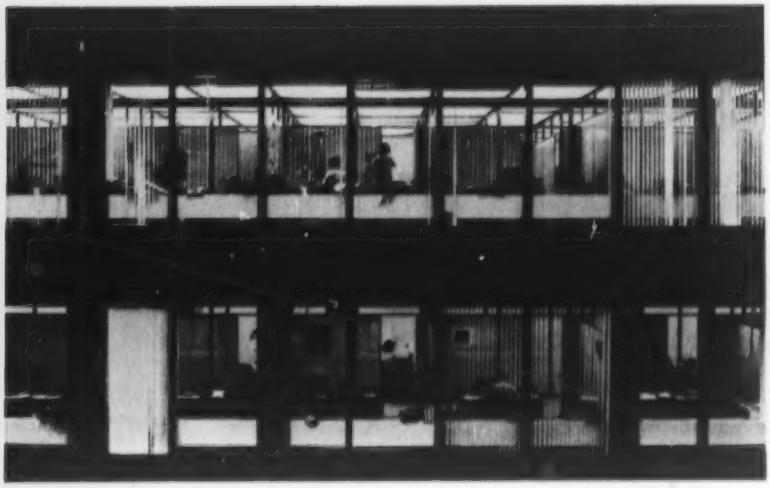

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The Golden Gate Bridge,
photographed by Alan Ross.

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Der Einfluss der amerikanischen Wirtschaft auf den Welthandel

The U.S. Economy and World Prosperity

Robert A. Mosbacher
Secretary of Commerce

Today, the U.S. economy is in its seventh year of expansion. This is the longest period of sustained peacetime growth in American history. And it continued even in the face of the '87 stock market crash, which was seen as a threat to economic expansion worldwide.

Since the end of 1982, our GNP has increased at an average four percent per year, after adjusting for inflation. And the economy shows few signs of fatigue.

Some 20 million new jobs have been created. The unemployment rate which was nearly 10 percent in 1982 has been cut in half. There are more people working than ever before. And inflation has dropped dramatically from the highs of nearly a decade ago.

Overall, a very positive picture. But, given the rising importance of economic power in the equation of national security and world leadership, there are imbalances, which cannot be ignored. One of these, of course, is the large deficit in our foreign transactions.

National and International Growth

Increasingly, national economic power depends on the ability to compete effectively in world markets. As you know, President Bush has stated his commitment to strengthening U.S. trade and competitiveness. It is a commitment I share. I believe, as he does, that the growth of commerce, both nationally and internationally, is the key to guaranteeing that America's most productive and prosperous days are still ahead.

However, even by Texas standards, there's a big job to be done. In 1988, our trade deficit was reduced by a record $32 billion and exports reached a record $322 billion. Nonetheless, the U.S. trade deficit stood at $120 billion, which is obviously unacceptable.

In the last year, exports contributed about a third of the growth in real GNP and to the dramatic increase in

Since the end of 1982, our GNP has increased at an average four percent per year, after adjusting for inflation.

the number of jobs. International trade activity now supports between five and six million of our labor force.

Because this international trade is the most vibrant sector of the American economy, it is essential that we stay the course to continue to reduce the trade deficit.

The latest news was encouraging. The numbers the Commerce Department released in June indicate continued improvement in our trade performance. Export growth for the first four months of '89 was up 16 percent compared to last year while imports grew at only 8 percent. The $36 billion trade deficit for the period represented a 12.6 percent decline over the first four months

of '88—which had shown a major decline of 16 percent over the same period in 1987.

Expanding World Trade

While these volatile statistics are not reliable as a prediction, they give us something to build on as we encourage businesses, large and small, to sell U.S. products abroad.

America remains committed to expanding not only our trade, but world trade. The lessons of history indicate that expanding world trade means greater prosperity for all.

Our openness has pumped growth into the economies of other nations—growth amounting to hundreds of billions of dollars. It has made the United States the market for more than half the exports of manufactured goods of the less developed countries.

We firmly reject any slide toward protectionism. In encouraging a multilateral trading system, it is the United States which has initiated every GATT round, from the Dillon Round in the late 1940s to the Uruguay Round.

But there are disturbing trends in the trade picture. Subsidies, distribution systems, industrial policies, and even the economic structure of some countries have led to a reliance on exports without a willingness to import. These trends, together with persistent macro-economic imbalances between the trading nations, have resulted in distorted global trade and currency movements.

But the even more serious threat to the trade system lies in the reaction of other countries to these imbalances. There's an increasing danger that countries will deviate from free-trade policies.

Clearly, these are issues to be addressed in ways that ensure that markets are opened not closed. That is why we are pursuing the Uruguay Round of trade negotiations. And that is the approach the Bush Administration has chosen in the use of the Omnibus Trade Act *Super 301* provisions.

We are acting not in defiance of the GATT and the multilateral trade system, but to expand it by opening foreign markets. Moreover, by addressing basic structural issues, we can begin to make a dent in the underlying causes of our overall trade imbalance.

We are well aware that the world is not as it once was. The U.S. share of the world economy is half what it was 40 years ago. But free trade continues to be the basis of our prosperity and that of other nations. And it was free trade that was the subject of my discussions with the leaders of the European Community.

New Opportunities in EC '92

As you know, by the end of 1992, the European Community plans to remove barriers to the free movement of goods, services, people, and capital within a 12-nation community. The result will be a single, $4 trillion market of 320 million consumers.

Surveys thus far indicate that U.S. business is optimistic about the new opportunities EC '92 will create—if, and only if, the program is implemented in an open manner. We're optimistic that it will be.

In 1988, U.S. merchandise exports to the Community were $75 billion, making the EC our largest export partner.

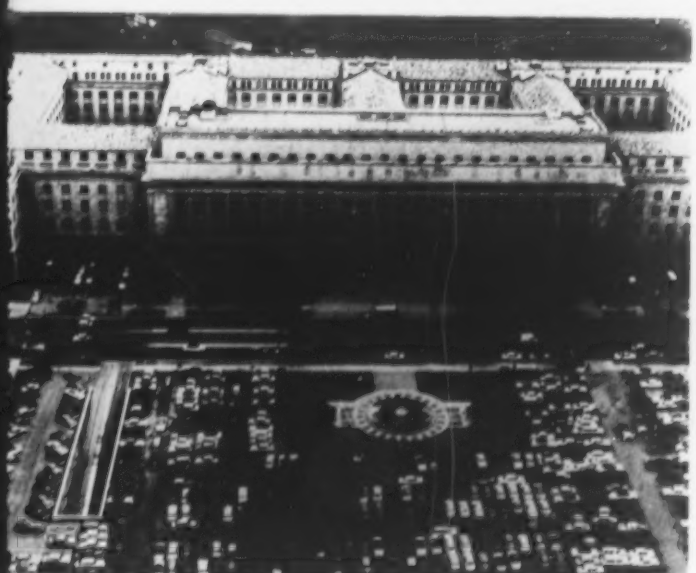
The European Community is currently the most important foreign market and business partner for the United States. In 1988, U.S. merchandise exports to the Community were $75 billion, making the EC our largest export partner. Moreover, the sales of U.S. affiliates in the EC last year were an estimated $550 billion. Added together, total sales of U.S. companies in the EC were three times our sales in Canada and four times those in Japan.

Because it's such an important market, some aspects of the EC's program have been of considerable concern to the U.S. government. These include reciprocity, rules of origin and local content requirements. But the one issue given top priority by American business is the question of standards and the testing and certification procedures used to implement them.

A *Fortune* magazine survey released when we were in Europe indicated that about 75 percent of U.S. firms ranked new EC standards and testing/certification as the single most important issue. Even a relatively small detail in standards can make the difference in whether or not an American product can be sold in the EC.

What we sought in our meetings with EC executives was a commitment to principles of transparency and openness. What we got was not only a commitment to these principles, but a commitment that U.S. products will be treated equally with European products for testing and certification. And there is an agreement for further discussions later this year.

In addition, I have received a copy of a letter that the European executives responsible for standards agreements have sent to their committees. The letter makes two important statements: One, that the European econo-



The Department of Commerce headquarters in Washington, DC.

The port of New York. America remains committed to expanding not only our trade, but world trade.

my can only profit if their market remains open and accessible; and two, in the preparation of final rules, the chairmen of the standards-making subcommittees are *strongly* urged to consider the comments and proposals of representatives from non-EC countries, including the U.S. It's an opportunity for American government and American business to have our concerns heard.

This signals an encouraging willingness on the part of the EC to address the concerns of trading partners.

But, of course, this does not mean that all problems are solved. Ideally, we'd like to see the *international standard-setting bodies* used wherever possible to provide the most universal standards testing and certification. And, of course, restrictive local content requirements, rules of origin, government procurement and other concerns remain.

Keying in U.S. Domestic Policies

Just as importantly, our ability to compete effectively in the European Community or the world economy will depend on a number of *domestic* factors. U.S. macroeconomic policies are an essential key. This Administration supports policies that would *lower the cost of capital.*

This can be accomplished via policies that increase our domestic saving rate relative to our desired investment rate. A steady growth in U.S. savings will lower the cost of capital to industry and exporters—and stimulate long-term investments in high technology and other industries.

The Administration's proposal to lower the long-term capital gains tax would significantly assist in this endeavor. Making permanent research and development tax credits would promote development of leading edge technologies. We must continue to reduce the government deficit via reduction of Federal expenditure growth.

In addition, we must review those antitrust laws that hinder the ability of our industries to compete against international conglomerates.

That's a full agenda, no question. But progress is being made. Overall, we returned from our trip encouraged and cautiously optimistic. We believe that EC 1992 will be good for Europe and that it can be a positive force for the United States and the rest of the world, if implemented in the open manner being discussed by European leaders.

In 1814, when the British were setting Washington on fire, the superintendent of the Patent Office stood on the steps of the Patent building and implored the British Commander not to let his troops burn it. "Don't destroy what would be useful to all mankind," he implored.

Although the Capitol building and the White House were set aflame, the Patent building was spared.

A free trade system also is useful to all mankind. And this Administration will continue all efforts to preserve it. □

This article is dated June 19, 1989.

Ueberblick

Der Einfluss der amerikanischen Wirtschaft auf den Welthandel

Die wirtschaftliche Staerke eines Landes ist in zunehmendem Masse von dessen Faehigkeit abhaengig, im Weltmarkt konkurrieren zu koennen. Aus diesem Grunde hat Praesident Bush Unterstuetzung bei der Staerkung des US-Handels und der Wettbewerbsfaehigkeit zugesagt, eine Aussage, die ich voll und ganz teile.

Das Wachstum des Handels—national wie international—ist der Schluessel fuer die kuenftige Prosperitaet in den USA. Die USA stehen zu ihrer Verpflichtung, neben dem nationalen auch den Welthandel zu foerdern, da zunehmender Welthandel gleichzeitig groesseren Wohlstand fuer alle Menschen bedeutet. Unsere offene Handelspolitik hat den Volkswirtschaften anderer Laender Wachstum in der Groessenordnung von Hunderten Milliarden Dollar beschert, der amerikanische Markt nimmt mehr als die Haelfte der Exporte von verarbeiteten Erzeugnissen aus Entwicklungslaendern auf. Aber es gibt Stoerfaktoren: staatliche Zuschuesse, Verteilungssysteme, Industriepolitik, ja sogar die Wirtschaftsstrukturen einzelner Laender haben Exportvertrauen geschaffen, aber ohne die Bereitschaft, auch zu importieren. Wir sind uns wohl bewusst, dass die Welt sich veraendert hat; der US-Anteil an der Weltwirtschaft ist in den letzten 40 Jahren um die Haelfte gesunken. Aber Freihandel ist und bleibt die Grundlage fuer unsere sowie die Prosperitaet anderer Laender.

Die amerikanische Industrie ebenso wie die Regierung sehen deshalb der Vollendung des Europaeischen Binnenmarktes mit grosser Erwartung entgegen. Die EG ist der wichtigste Markt und Aussenhandelspartner fuer die USA. So beliefen sich die Warenexporte 1988 in die EG auf 75 Milliarden Dollar. Die EG ist damit unser groesster Exportpartner. Darueber hinaus haben die US-Tochterunternehmen in der EG schaetzungsweise Verkaeufe in der Groessenordnung von 550 Milliarden Dollar in den letzten Jahren getaetigt.

Die Faehigkeit der USA, im europaeischen oder auf dem Weltmarkt erfolgreich konkurrieren zu koennen, haengt von einer Reihe von nationalen Einflussfaktoren ab. Die amerikanische Wirtschaft braucht eine makrooekonomische Politik, die die Kosten fuer Kapital senkt. Ausserdem muss die USA diejenigen Fusionsgesetze revidieren, die die amerikanische Industrie im Konkurrenzkampf mit auslaendischen Konzernen behindern.

Wir glauben, dass die EG 1992 fuer Europa nuetzlich sein wird. Sie kann aber auch eine positive Kraft fuer die USA und die uebrige Welt sein, wenn sie—wie von ihren fuehrenden Politikern bekundet—offen bleibt. Ein Freihandelssystem ist fuer jeden nuetzlich. Diese Regierung wird alle ihre Kraefte darauf konzentrieren, es zu bewahren. □

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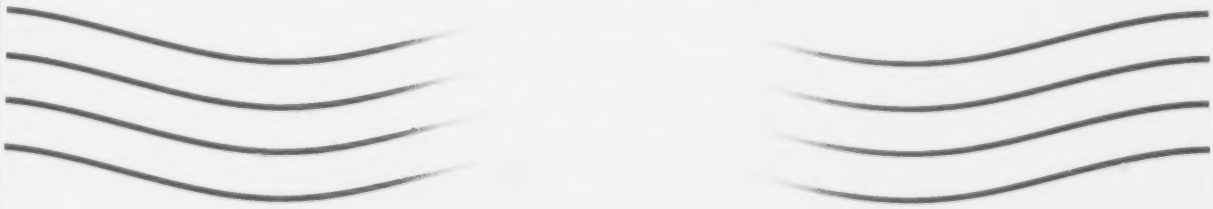

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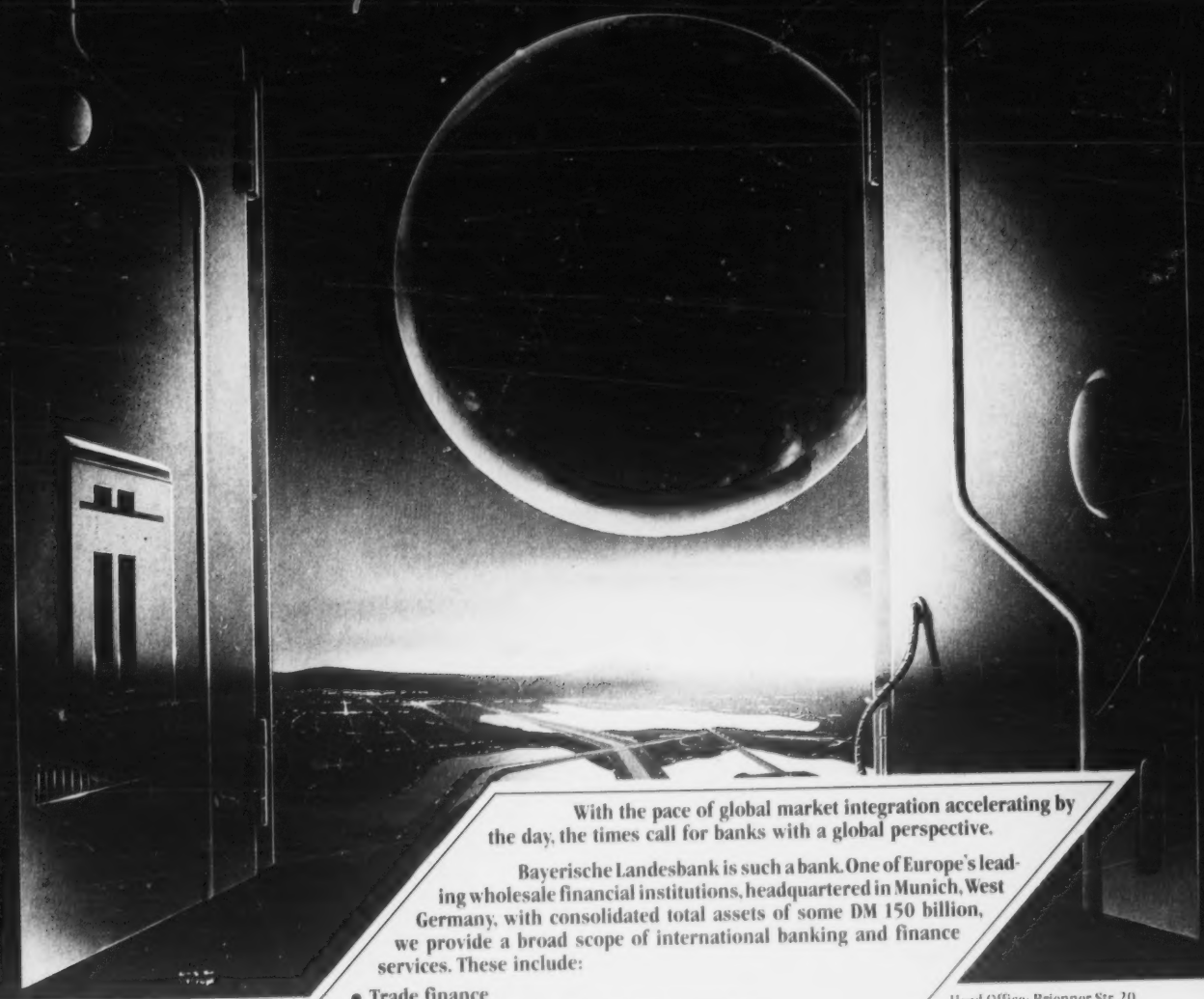

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Die Uruguay-Runde und die US-Handelspolitik—
Eine Basis fuer die Zukunft

The Uruguay Round and U.S. Trade Policy: A Foundation for the Future

Carla A. Hills
Ambassador of the United States
United States Trade Representative

Earlier this year, President Bush conducted an extensive review of the global trading system and of our trade policy. I should like to outline the results of our deliberations, in particular, to articulate the goal of U.S. trade policy, our strategy for achieving it, and the centrality to it of the Uruguay Round.

U.S. Trade Policy for the 1990s

We have a clear vision of the world that we seek: one where entrepreneurs, not government bureaucrats, determine how industries and farms compete, and how nations trade. The policy of the Bush Administration is to open markets, not to close them; to create an ever-expanding global trading system based upon clear and enforceable rules.

The President has designed, and we are vigorously executing, a three-pronged strategy to achieve our vision:

- First, we are committed—and we are challenging our trading partners to match our commitment—to conclude successfully the Uruguay Round of multilateral trade talks by the December 1990 deadline;
- Second—in a manner that is entirely consistent with our Uruguay Round aims—we will pursue bilateral and regional market-opening initiatives;
- Finally, we will use the strength of our domestic market to further our objectives in the Round.

The one essential target of our strategy is to get government out of business: out of the business of making steel, selling grain, growing beef, building ships, and the hundreds of other ways that governments distort trade. This goal drives all of our recent trade actions, including:

The one essential target of our strategy is to get government out of business...

- Our negotiations in steel and shipbuilding, which aim to curb government subsidies and open markets;
- Our clear and constant support for the European Community's (EC) march toward a single market, and our call for it to lower barriers not only *within* Europe but *between* Europe and its trading partners;
- Our implementation of the 1988 Trade Act in ways that will free global commerce from government interference;
- Our visit last month to Mexico, where we applauded the creativity of the Salinas Administration, which is tearing down tariffs and trade barriers, and restructuring Mexico's economy;
- Our visit next month to the Pacific Rim to reinforce that region's tilt toward market-driven trade and investment regimes; and

- Our continued opposition to protectionist pressures in our own country, such as attempts to restrict foreign investment.

And sometimes we need to prod government to eliminate anticompetitive practices in industry that can equally restrain trade. For example, our Structural Impediments Initiative with Japan is designed to root out visible and *invisible* barriers that severely limit competition in both countries.

The Uruguay Round

Each of these market-opening efforts addresses specific issues. But they alone will not accomplish the sweeping reform of the global trading system that is so clearly needed.

Since World War II, the General Agreement on Tariffs and Trade (GATT)—the main platform for international trade negotiations—has sponsored seven successful Rounds of tariff cuts among the world's great trading nations. These Rounds lowered barriers and expanded trade. As a result, our economies have grown faster in the last four decades than in any similar period of world history.

The GATT continues to promote trade expansion, and has accommodated a growing membership of diverse economies. Most important, it has generated widespread acceptance of, if not always adherence to, certain basic principles—such as national treatment—that support open trade.

The problem, however, is that the trading system is outstripping the GATT. As tariffs have *decreased*, non-tariff barriers have *increased*. Moreover, areas poorly covered by GATT rules, like agriculture, or not covered at all, like intellectual property, services and investment, are of much greater importance than they once were.

All told, more than $1 trillion in goods and services trade is not adequately covered by international rules of fair play.

In short, the GATT is akin to a one-bedroom bungalow on a priceless piece of property: the benefits of renovation far outweigh the costs. All told, more than $1 trillion in goods and services trade is not adequately covered by international rules of fair play. And when rules are weak or nonexistent, trade disputes turn into trade wars; exporters are frustrated; inefficient industries feed at government troughs. The cost is staggering:

- Europeans spent almost $120 billion last year to support agriculture; in the United States the bill came to almost $75 billion. That is three or four hundred dol-

Brooklyn Port Authority Marine Terminal (upper left) and Red Hook Container Terminal (foreground). The policy of the Bush Administration is to open markets, not to close them.

lars out of each of our pockets annually.

- In the Community, an additional $50 billion is squandered in subsidies to European steelmakers, shipbuilders and other manufacturers. That is another $150 taken out of each consumer's pocket each year.
- Inadequate protection of intellectual property costs U.S. software designers, pharmaceutical companies and other exporters more than $40 billion annually. Their European counterparts lose billions more. This piracy is sapping the productivity of the Ruhr and Silicon valleys alike.

We cannot go on like this. The Round is our best chance to control what may soon be uncontrollable.

It is for this reason that President Bush has made the Uruguay Round—launched in Punta del Este, Uruguay in 1986—America's highest trade priority. Right now, 100 nations are working in Geneva to expand the GATT, strengthen it as an institution, broaden its coverage of agriculture, and extend it to new concerns such as services, intellectual property rights, and investment.

My message to Europe is simple—and urgent. We must reach for ambitious results. If we merely tinker at the margins, we face a return to brinkmanship and trading blocs. For too long, we have only *reacted* to changes in global trade. The Round is this century's last best chance to *act*:

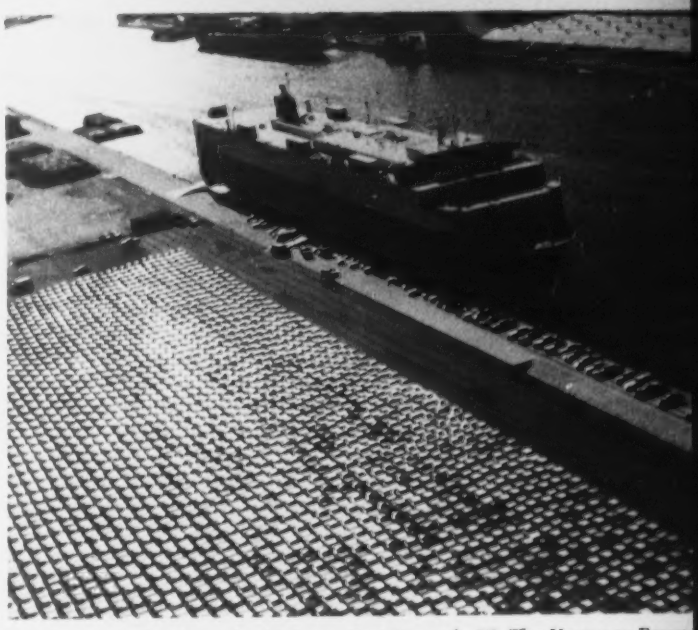
Act in *agriculture.* The U.S. goal is to eliminate all trade-distorting measures, while still giving farmers time to adjust to market forces. Last month, we proposed converting all non-tariff trade barriers—such as quotas and variable levies—to tariffs, which are visible and thus more easily reduced. Later this month we will table in Geneva a comprehensive proposal under which farmers can grow *what* they want, *when* they want, and earn a decent income without government interference. In our view, without fundamental reform in agriculture, the Round will fail. With reform, we all succeed: reform could create 3 million new jobs in Europe, cut the U.S. budget deficit by $37 billion, and boost real Japanese wages 2.5 percent.

Act to ensure *market access* for industrial products. The United States challenges its trading partners to envision a future *zero tariff* world. We stand ready today to work with others to achieve this in *key* sectors in the present round.

Act to protect *intellectual property rights.* We submitted a far-reaching proposal last year. Negotiators are now drafting an agreement that in practical terms should provide:

- Patent protection for pharmaceuticals, chemicals and other products,
- Copyright protection for sound recordings and computer software,
- Trade secret protection for manufacturing processes and data, and
- Effective enforcement to stop trademark counterfeiting and the piracy of copyrighted materials such as books, motion pictures and recordings.

Act to ensure that international rules of fair play cover *services.* British and French insurance companies, U.S. travel agencies and other service firms must be able to set up shop in foreign countries and be treated like local



Off-loading of imported vehicles at Port Newark, NJ. The Uruguay Round must remove trade-distorting subsidies.

firms. We will table our ideas on a comprehensive agreement in October.

Act to curb restrictions on foreign *investment.* U.S. and Japanese automakers, German equipment manufacturers and other companies should be able to invest overseas without being forced to take a local partner, export a given percentage of their output, use local parts, or meet any one of a dozen other investment conditions. I just came from Geneva, where our private sector advisors and I spent two days discussing the investment proposal we tabled in July.

Act to end trade-distorting *subsidies.* I have mentioned the U.S. initiatives in steel and shipbuilding, but the problem goes beyond these sectors. Subsidies destroy business and bankrupt budgets. We can help workers and regions more effectively without resort to subsidies that stifle competition. The United States will present an ambitious proposal to limit subsidies by year's end.

And, *act* to *contain disputes.* We need new mechanisms to resolve our differences before the inevitable dis-

America does not seek an unfair advantage, but we will not unilaterally disarm.

pute escalates into a regrettable war. Ideas we challenge our trading partners to consider run the gamut from arbitration to *appellate review,* to an actual *GATT Court.* Whatever the final outcome, we need a system that is swift, fair and effective.

Time is short, the task great. By the end of this year, countries must table all remaining proposals in each of the 15 negotiating groups. The United States has submitted numerous proposals. We will present the rest of our ideas by year's end. In the first half of 1990, countries will

work to reach agreements in each area. We must then hammer these agreements into a complete package by the time the GATT Ministers meet in Brussels in November 1990.

Conclusion

Europe and America have worked hand-in-hand to promote freedom throughout the world. Whether in terms of freedom of expression, religion or political belief, we have fought for the right of people everywhere to make their own choices.

Choice is the indelible link between our political system and our economic system. Political freedom and economic freedom are mutually dependent. Everyone should have the ability to choose how, when, and where to buy or sell goods and services freely in a fair market. That is competition: the fundamental strength of our two nations. David Ricardo in 1817 called it the freedom to do *most* what each of us does *best*.

That is *what* the Uruguay Round is all about—*competition*. That is *why* it is the centerpiece of our trade policy and the key to the future of world trade. If the Round is to succeed, there are, in our view, certain agreements we *must* have:

- Fundamental reform of agricultural trade,
- The extension of GATT rules to the *new areas* of services, investment and intellectual property,
- Expanded market access for trade in goods,
- The removal of trade-distorting subsidies, and
- Fair and effective dispute settlement.

America does not seek an unfair advantage, but we will not unilaterally disarm. We do not seek to open markets for the sole benefit of American entrepreneurs. Rather, we are firmly committed to use our strength to open markets to all who would compete for them.

We succeeded, for example, in opening the Japanese beef market, which served Australian ranchers at least as well as our own. The lesser developed countries in particular must have the openness that we seek, so that they, too, can become markets for our products and assume the responsibilities of the international trading system. In short, we seek what we have always sought—freedom and fairness—for farmers and factory workers throughout the world.

In short, we seek what we have always sought—freedom and fairness—for farmers and factory workers throughout the world.

Each cycle of diplomatic effort adds its own chapter to history. Ours should reflect our daring, not our fears; our confidence, not our insecurities. The trading system that best mirrors these qualities is one that does most to develop them. If the Uruguay Round succeeds, we will have produced a sequel worthy of the work done 40 years ago—a sequel vibrant with hope and prosperity for the next generation. □

This article is dated September 14, 1989.

Ueberblick

Die Uruguay-Runde und die US-Handelspolitik — Eine Basis fuer die Zukunft

Die USA haben eine klare Vorstellung von einer erstrebenswerten Welt, in der private Unternehmer, nicht Buerokraten, ueber den Wettbewerb im industriellen und landwirtschaftlichen Bereich bestimmen, ebenso ueber den Handel der Laender untereinander. Die Politik der Regierung Bush ist darauf ausgerichtet, die Maerkte zu oeffnen, nicht abzuschirmen, ein expandierendes weltweites Handelssystem auf der Grundlage von eindeutigen und durchsetzbaren Regeln zu schaffen. Hauptziel dabei ist, den Regierungseinfluss aus dem Wirtschaftsgeschehen weitgehend herauszunehmen, z.B. aus der Stahlgewinnung, aus dem Getreideverkauf, der Rindfleischproduktion, dem Schiffbau und den Hunderten von anderen Wegen, mit denen die Regie-rungen das Handelsgeschehen verzerren.

Seit dem 2. Weltkrieg wurden im Rahmen des GATT sieben erfolgreiche Tarifsenkungen durchgefuehrt. Dabei wurden Handelshemmnisse abgebaut und die Ausweitung des Welthandels erleichtert. Unsere Volkswirtschaften konnten in den letzten 40 Jahren schneller wachsen als je zuvor. Das Problem ist jedoch, dass das GATT mit dem Handelssystem nicht Schritt hielt: in dem Masse, wie die Zoelle abgebaut wurden, sind nicht-tarifaere Handelshemmnisse aufgebaut worden. Die vom GATT nur ungenuegend abgedeckten Bereiche, wie z.B. die Landwirtschaft, oder die nicht enthaltenen Bereiche, wie geistiges Eigentum, Dienstleistungen und Investitionen, sind heute von weitaus groesserer Bedeutung. Mit anderen Worten: Gueter und Dienstleistungen mit einem Wert von ueber einer Milliarde US-$ sind nicht ausreichend durch internationale Regeln des "fair play" erfasst. Und wenn Regeln schwach ausgestaltet sind oder ueberhaupt nicht existieren, koennen Handelsstrei-tigkeiten leicht in Handelskriege ausarten. Deshalb hat Praesident Bush der 1986 in Punta del Este eroeffneten Uruguay-Runde hoechste Prioritaet eingeraeumt.

Meine Botschaft an die Europaeer ist einfach, aber dringlich: Wir muessen anspruchsvolle Ergebnisse erzielen; wenn wir "Flickschusterei" betreiben, werden wir sehr schnell wieder mit riskanten Krisenmassnahmen und Handelsbloecken zu tun haben. Viel zu lange haben wir auf die Veraenderungen im Welthandel lediglich reagiert. Die Runde ist die allerletzte Chance in diesem Jahrhundert, um zu agieren. Amerika will dabei keine unfairen Vorteile fuer sich herausholen, aber auch nicht einseitig Nachteile in Kauf nehmen. □

Manchmal fällt der Apfel weit vom Stamm.

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Die deutsch-amerikanischen Wirtschaftsbeziehungen — Freundschaften muessen gepflegt werden

German-American Economic Relations: Friendship Has To Be Cultivated

Dr. Dieter Spethmann
Chairman of the Board of Management
Thyssen AG

These are stormy times and our topic has new significance. Friendships have to be cultivated—personally and politically—even and especially when 2,500 miles of Atlantic Ocean lie between the partners.

Whoever wishes to cultivate a friendship should be sure that it exists. Fortunately, in the case of German-American relations the question is easy to answer. The friendship between the U.S. and the Federal Republic of Germany is a fact, socially, politically, economically and militarily. This friendship dates back to a first treaty in the 18th century and is highly valued in West Germany. The Federal Republic has been built up politically and economically on the basis of its close ties with the United States. The late John McCloy stands on the American side as one of Germany's great friends. He and many other outstanding Americans extended to us Germans the hand of friendship after the terrible events of the past and gave our country a place in the international community. The Americans were the most important godparents at the cradle of the Federal Republic.

This year the Federal Republic of Germany celebrated its fortieth birthday. In relation to the U.S., West Germany's position in the world is defined by the following three elements:

- The leading role of the U.S. is undisputed. In case of doubt, Washington speaks and acts for the western part of this world. This is also accepted by the great majority in my country.
- The Federal Republic is part of NATO led by the U.S. No other NATO member is more integrated into this alliance than West Germany. In terms of defense policy, in terms of economic policy and in terms of our common value system, we are a part of the West and want to remain so.

The Americans were the most important godparents at the cradle of the Federal Republic.

- Over four decades, a close interdependence has developed between the American and German economies. This reveals itself in many ways, above all in trade and capital flows as well as in direct investments. It is also reflected in institutions, such as the German-American Chamber of Commerce in New York, or in many other groups, such as the German-American meetings of industrialists.

Our friendship with the U.S. is anchored not only in my generation. Opinion polls reveal that young Germans also highly regard the friendship between our two nations. In spite of occasional waves of protest, such as during the Vietnam war when public opinion in your country was also very divided, there is hardly any anti-

Americanism in my country.

Demonstrations and irritations come and go. Just take the welcome given by the Germans to Gorbachev on his visit last June, which caused many of our foreign friends to shake their heads. I can understand this reaction. I, too, would have wished more objectivity. But the welcome given to Gorbachev in Germany, and also elsewhere, is meant for him as a person, not his state, and definitely not his political system.

The German-American friendship, in contrast, stands on a broad basis of common values and mutual interests.

Transatlantic Business Relationships

Last year West Germany exported goods to the value of DM 46 billion to the United States, which was around 8 percent of our total exports. Leaving aside the EC market, the huge American economy with its 240 million fastidious consumers is the most important foreign market for German products. The equally huge economy of the USSR with its 280 million people accounts for just DM 9 billion in German exports, which is equivalent to the deliveries of German products to, for example, Denmark with a population of 5 million people.

The steadily growing trade between the U.S. and the Federal Republic is safeguarded by broad flows of direct investments. North American companies have invested around DM 36 billion in West Germany. Many major names from American trade, industry and the banking sector are present in the Federal Republic. Also, many Germany companies have long recognized that only by having their own manufacturing facilities and marketing channels is it possible to successfully penetrate the U.S. market. German companies have invested more than DM 40 billion in the U.S.

Allow me to illustrate what transatlantic economic cooperation can mean by taking my own company as an example. Thyssen currently sells products and services to the value of $2.4 billion to customers in North America, which is around 13 percent of our worldwide sales. Thyssen has been present in the U.S. since the 1950s. It began, if our old hands remember correctly, with a typewriter standing on a piano in a private apartment in New York. Initially, the tunes played on this piano concerned only steel, which was in strong demand. Steel from Germany destined for the U.S. was followed by steel from the U.S. going to Europe and the world. Coal and other products followed, and by exporting them we, in New York, have also done something to help the American balance of trade.

Then, a good decade ago, we became involved in an American firm, the Budd Company. It occasionally meant braving stormy weather, but seeing it through has paid off for us, and it has also maintained 11,000 American jobs. Today, Budd is just as financially sound as our German companies. After Duisburg and Hamburg, the area around Detroit is our Group's largest operating base internationally.

A Thyssen blast furnace control room.

We have not forgotten the courage of great French statesmen such as Robert Schuman, Jean Monet or Charles de Gaulle, who gave the Federal Republic of Germany a fair place in Europe.

All this is transatlantic partnership as Thyssen has experienced it. Other German enterprises also have had positive experiences—similar to the major American corporations operating in Germany.

Just as the U.S. assumes a key role in the political and economic considerations of the Germans, so West Germany, conversely, has a role to play on Washington's chessboard. Because of this, American observers sometimes have critical thoughts about the future of this country in far-off Europe:

- First, there are attempts by some of our European partners to turn the future single European market into a closed shop. These loudly voiced intentions have led to the worried catchword *Fortress Europe.*
- Second, there is the specter of an uncontrollable rapprochement between West Germany and the Soviet Union which could damage this country's free-market society or, at least, weaken our NATO involvement.

Europe and 1992

A few words regarding the European unification process and its importance for West Germany. To the Germans the vision of a united Europe has always also meant the chance to find a new identity beyond the moral ruins left to us by a completely degenerated nationalism. We have not forgotten the courage of great French statesmen such as Robert Schuman, Jean Monet or Charles de Gaulle, who gave the Federal Republic of Germany a fair place in Europe. But also unforgotten is

Chancellor Helmut Kohl receives a group of U.S. Senators in Bonn. Friendship between the U.S. and the Federal Republic of Germany is a fact, socially, politically, economically and militarily.

the far-sightedness of Winston Churchill who, as early as 1946 in Zurich, implored the academic youth of the world to let Europe come into being. Perhaps, in doing so, he was thinking of Abraham Lincoln who coined the phrase that *a house divided against itself cannot stand.*

On January 1, 1993 the economic boundaries between the EC member countries are to disappear. This goal is enshrined by law in the Single European Act. It was adopted by the Council of Ministers of the EC in February 1986, and has been in force in all the EC member countries since July 1, 1987. In Europe, which is such a small area geographically, a population of 320 million well-educated and critical consumers will form the largest single market in the world.

There are many reasons for the creation of such a single market. More growth, more jobs, improved competitiveness for Europe's industry. Also, in a world of increasing globalization, the single market is the European way to keep up with the U.S. and Japan.

On the other side, the removal of the intra-Community barriers can and should benefit suppliers from non-EC countries, such as the U.S., just as much as it will benefit EC companies. U.S. companies already established in Europe will enjoy the same advantages of the single market as European companies. And for those who want to go to Europe for the first time, as exporters or as investors, it should become much easier, since, right from the beginning, they can make better use of economies of scale.

Essentially, the following steps are planned for the realization of the single market:

- Removal of the still existing restrictions on the movement of goods between the member countries. Abolition of border controls. For this reason, also harmonization of the very widely differing value-added and excise-tax rates.
- Removal of the non-tariff trade barriers. Here, instead of a lengthy process of harmonization, mutual recognition of each member country's national regulations is planned.

If you shut yourself in, you become a prisoner, even if you turn the key yourself.

- Abolition of protectionism within the EC with regard to hitherto nationally regulated markets. These include, in particular, areas such as telecommunications, energy, transportation, banking and insurance services, and the movement of capital.
- Other goals concern the social dimension of the

The Berlin Wall opens up on November 9, 1989. The East German economy needs a complete rejuvenation, a free-market system, and a sound currency.

Common Market as well as environmental policy, technological development and overall general economic policy.

Ready-made solutions are not available for all these problems. Although the Council of Ministers in Brussels has adopted numerous directives of the single-market program, their translation into national law still lags greatly behind. And the progress toward the single market continues to be shaped by a conflict between two completely opposite concepts:

- On the one side, there are those who advocate alignment by means of statutory regulations or laws, i.e., harmonization.
- On the other side, there are those who advocate competition between the member countries and their social and legal systems.

The back and forth on the subject of value-added and excise taxes is a typical example of this, just as are some insurmountable differences on labor and social policies and in the area of a European company statute.

I think that the historically evolved economic and social systems should be seen as respective entities. The freedom to exercise one's profession in any of the 12 member countries, and the mutual recognition of professional qualifications is much more important than centrally regulated retirement benefits, working conditions, or even rules for the representation and co-determination of labor at shop floor board levels.

Relations between the EC and non-EC countries are also giving rise to conflicts within Europe. We Germans earn one-third of our wealth through exports, almost half of that outside the EC. Twenty-eight million jobs in West Germany, many in sophisticated industries, cannot survive without open access to the world market. For this very reason we will continue to vigorously resist any attempt from Brussels to build walls around the future single market. This also applies to such sensitive areas as the automotive industry or communications. If you shut yourself in, you become a prisoner, even if you turn the key yourself.

This free-market attitude is not made easy for German industry. If a Japanese automaker says "we will win the world automobile war," then this reveals aggressive marketing, to put it mildly. Any country that accounts for only two percent of the world population but at the same time wants to supply one-third, if not more, of the automobiles worldwide, should not be surprised when conflicts occur. Transplants are shooting up at a breath-taking pace in the U.S. and, with the usual time lag, now also in Europe. Are European automakers and their governments willing to adjust their capacities, if the market does not leave enough room? This is more than doubtful. It would be wise if Japan were to reflect on this.

Europe 1992 and the implementation of the single market—that is a concrete utopia. It has rekindled a long-missed enthusiasm to attain new goals on the old continent. This positive attitude has also taken hold of German companies right across the board. But temporary concentration on consolidating and expanding their European positions does not mean that German companies neglect their global business. The market shares acquired over decades in the U.S., the hitherto largest single market in the world, will remain of great importance. Once the single European market has become a reality, the regional priorities will be determined by plain economic and political calculation, and nothing else.

So far, the fully integrated European market has not materialized. A number of hurdles, which should not be underestimated, still must be overcome. For example, we still lack evidence that national governments of EC countries will not fall back into their old habits, if a major industry in their country cannot survive in competition. The bad experiences with subsidies in the European steel industry should serve as a warning.

And finally there is the currency issue, which is being pushed through with undiminished vigor by the EC

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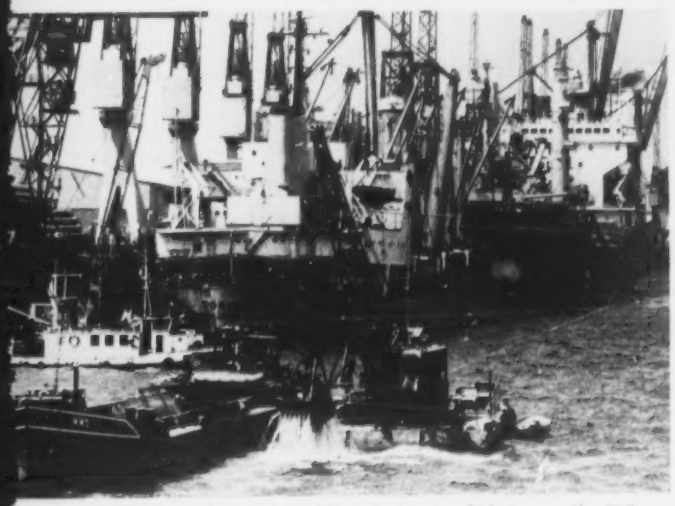


The Port of Hamburg. Steadily growing trade between the U.S. and West Germany is safeguarded by broad flows of direct investments.

Commission and, in particular, by France. When the Single European Act was adopted in 1986, a common currency and a European central bank were not a subject. This is why a special EC Council of Ministers was suggested to decide upon the necessary treaty amendments. Yet there is no agreement concerning the timetable. There is also a long way to go until consensus is reached regarding the quasi-constitutional status of the independence of central banks.

Why this issue on top of the already ambitious project of the 1992 single market? Why the hurry in such a highly sensitive area? To the citizens of the Federal Republic the German mark stands for confidence built up over four decades. It stands for the solidity of the second German republic. It is part of a new German identity which is also acknowledged beyond our borders. The advocates of a

Our first priority should be the realization of the single market.

monetary union are not well-advised to push this topic at the present time. Our first priority should be the realization of the single market.

Germany Remains Tied to the West

Earlier I quoted the words of Lincoln, that a house divided against itself cannot stand, and related them to Western Europe and European unification. One could, of course, also relate these words to the new developments in Central Europe. These developments, especially in East Germany, have taken on such a breath-taking dynamic force of their own in the past few weeks that one can speak of a revolution. Yes, it is a revolution.

I recently read in a report issued by the Chamber the phrase *German Volkerwanderung from East to West.* We all have seen the tens of thousands of refugees voting with their feet. We all have seen the demonstrations of hundreds of thousands in German towns on the other side of the crumbling Iron Curtain. We all have seen the Wall coming down in Berlin. There was pure joy and excitement both in the East and in the West; there was not the slightest indication of nationalistic attitudes. All our friends around the world share our joy about these events and the absence of any violence.

With us the whole world asks how destabilization of the complex European situation can be avoided and how

The East German economy needs a complete rejuvenation.

constructive answers can be found to the East German population's search for a new future. Undoubtedly, this is first and foremost a matter for the East Germans themselves. But much of what we hear from the opposition groups in East Germany about their political aims appears understandably not fully mature. It will probably take some time until, from this tremendous state of ferment, practicable concepts take shape.

First and foremost, free elections are urgently necessary. The East German economy needs a complete rejuvenation. It needs a free-market system and it needs a sound currency. If asked, the Federal Republic will certainly assist in this process. But we are not willing to pay our German marks for any new form of socialism.

Naturally, we West Germans stand by our constitution and the right of the German people to regain their unity in free self-determination. I am, however, firmly convinced: the majority of the West German population will have nothing to do with a seesaw policy. It is proud to belong to the free West and it identifies itself with its values. A neutral Germany, even in return for reunification, is of no attraction to us West Germans. The answer to the East German crisis is not reunification in terms of forming a fourth Reich or incorporating the GDR into the Federal Republic. The answer will probably be some kind of a confederation still to be developed and imbedded in an enlarged European Community.

At the very beginning of the East German crisis it was Jacques Delors who said that the European Community would, unavoidably, have to face up to the German question. I agree with this without reservation. Thanks to the Single European Act, the EC has developed a new driving force. Negotiations with the EFTA concerning the future arrangement of EFTA-EC relations are on the way. Some EFTA countries are considering full EC membership. If major progress on disarmament can be achieved, and East-West relations as a whole can be further improved extensively, all this could well lead to further enlargements of the EC. Why should a gradual incorporation of Central European countries, including East Germany, not be part of such a process? In the Chinese language the symbol for crisis is at the same time the symbol for opportunity.

So far, we have met with much understanding on the part of our friends in the West for the current German dilemma. President Mitterand has spoken in well-balanced terms on several occasions. The statements of

President Bush and of other high-ranking representatives of the Administration in Washington have been very friendly toward Germany. This confirms the high value of stable friendships.

The U.S. has told the world time and again that democracy and freedom of the individual are the best prerequisites for stable and prospering states. The fact that in all countries east of the Federal Republic the equality of man is cherished in the meaning of the American constitution is a credit to the perseverance of the American democratic system.

The Atlantic bridge between the U.S. and the Federal Republic of Germany is founded on common roots and mutual interests. We all know that there are unsettled questions in day-to-day political business. But holding different opinions is part of democracy. The U.S. military presence in the Federal Republic of Germany may appear to Moscow in a different perspective in the future.

Should anyone tell my children that, even following Gorbachev's reforms, they could feel closer to their German homeland when standing in Red Square in Moscow than by the harbor of San Francisco, then I would still consider that a confusion of geography and politics. □

Ueberblick

Die deutsch-amerikanischen Wirtschaftsbeziehungen — Freundschaften muessen gepflegt werden

Wer Freundschaften pflegen will, sollte sicherstellen, dass sie auch existieren. Im Falle der deutsch-amerikanischen Beziehungen ist es gluecklicherweise einfach, diese Frage zu beantworten. Die Freundschaft zwischen den USA und der Bundesrepublik Deutschland ist ein soziales, politisches, wirtschaftliches und militaerisches Faktum. Diese Freundschaft ist nicht nur in der Nachkriegsgeneration verankert; Meinungsumfragen belegen, dass ebenso die jungen Deutschen der Freundschaft zwischen den beiden Nationen einen hohen Stellenwert beimessen. Die deutsch-amerikanische Freundschaft steht auf einer breiten Grundlage gemeinsamer Wertvorstellungen und gegenseitiger Interessen.

Der staendig steigende Handelsaustausch zwischen den USA und der Bundesrepublik ist durch einen breiten Strom von Direktinvestitionen abgesichert. Amerikanische Unternehmen haben rd. 36 Milliarden DM in der Bundesrepublik investiert. Ebenso haben deutsche Firmen seit langem erkannt, dass der US-Markt nur durch die Errichtung eigener Produktionsstaetten und Absatzwege erfolgreich gemeistert werden kann. Das deutsche Investitionsengagement in den USA belaeuft sich auf ueber 40 Milliarden DM.

Bei der Bewertung der deutsch-amerikanischen Beziehungen kann der europaeische Einigungsprozess und dessen Bedeutung fuer die Bundesrepublik nicht ausser acht gelassen werden. Am 1. Januar 1993 werden die Binnengrenzen zwischen den EG-Mitgliedsstaaten der Vergangenheit angehoeren. EG-Europa wird dann mit einer Bevoelkerung von 320 Millionen gut ausgebildeter und kritischer Verbraucher der groesste Einzelmarkt der Welt auf einem relativ begrenztem geografischen Gebiet sein. Es sind viele Gruende, die fuer die Schaffung des Binnenmarktes sprechen: mehr Groesse, mehr Arbeitsplaetze, besserer Wettbewerb innerhalb der europaeischen Industrie. In einer Welt zunehmender Globalisierung ist der Binnenmarkt auch als europaeischer Weg zu verstehen, mit den USA und Japan Schritt zu halten. Andererseits koennen Anbieter aus Drittlaendern, wie der USA, von dem Wegfall der Binnengrenzen profitieren. Die in Europa ansaessigen US-Unternehmen kommen ebenfalls in den Genuss der Vorteile des Binnenmarktes. Und diejenigen, die als Newcomer in die EG exportieren oder dort investieren wollen, koennen von Anfang an von den wirtschaftlichen Gegebenheiten besseren Gebrauch machen.

Die Beziehungen zwischen der EG und Drittlaendern tragen allerdings auch Konfliktstoff nach Europa. Die Bundesrepublik erzielt ein Drittel ihres Wohlstands durch Exporte, davon gehen knapp die Haelfte in Laender ausserhalb der EG. Ohne ungehinderten Zugang zum Weltmarkt kann der Bestand von 28 Millionen Arbeitsplaetzen in der Bundesrepublik, davon die meisten in Industriezweigen der Hochtechnologie und des tertiaeren Bereichs, nicht ueberleben. Aus diesem Grund wird die Bundesrepublik auch weiterhin energisch allen Bestrebungen in Bruessel, den Binnenmarkt nach aussen abzuschotten, entgegentreten.

Die Worte von Abraham Lincoln, dass ein in sich geteiltes Haus keinen Bestand haben kann, gelten in besonderem Masse fuer Westeuropa und die europaeischen Einigungsbestrebungen. Sie gelten aber ebenso fuer die neuen Entwicklungen in Mitteleuropa. Die dortigen Ablaeufe, vor allem in Ostdeutschland, haben eigendynamische Kraefte freigesetzt, die einer Revolution gleichen. Die Westdeutschen stehen zu ihrer Verfassung und dem Recht des deutschen Volkes, ueber die Wiedervereinigung beider deutscher Staaten in freier Selbstbestimmung zu befinden. Dabei kann davon ausgegangen werden, dass die Mehrheit der westdeutschen Bevoelkerung stolz darauf ist, dem freien Westen anzugehoeren, und sich mit den westlichen Wertvorstellungen identifiziert. Ein neutrales Deutschland, selbst zum Preis einer Wiedervereinigung, bietet fuer die Westdeutschen keine Anreize. Die angemessene Reaktion auf die Krise in Ostdeutschland koennte sein, eine Art Konfoederation eingebettet in die EG zu schaffen.

Das Verstaendnis, das unsere westlichen Freunde, darunter Praesident Bush und hochrangige Vertreter seiner Administration, dem deutschen Dilemma entgegengebracht haben, bestaetigt den hohen Wert einer bestaendigen Freundschaft. Die atlantische Bruecke zwischen den USA und der Bundesrepublik Deutschland basiert auf gemeinsamen Fundamenten und gegenseitigem Interesse. Es gibt im politischen Alltagsgeschaeft zwar auch ungeloeste Probleme, aber das Vertreten unterschiedlicher Auffassungen ist ein wertvoller Bestandteil der Demokratie. □

Dräger

Draeger Celebrates a Century of Innovation!

1889

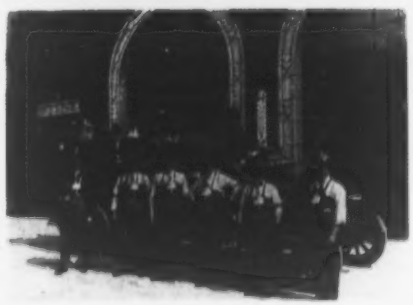
Draeger industrial safety products and services have a long and successful track record in the U.S. and worldwide.

For 100 years Draeger's quality products have been being used by miners, emergency rescuers, fire fighters, industrial workers and in the aviation industry.

1904

Since the start of the century the "Draeger-man" has been popular with American miners.

1914



A Fire Department (ca. 1914) is outfitted with Draeger breathing apparatus.

Specialists in combatting oil field fires rely on Draeger PA-80 Self-Contained Breathing Apparatus, just as the fire brigades in Miami, Vienna or Singapore do.

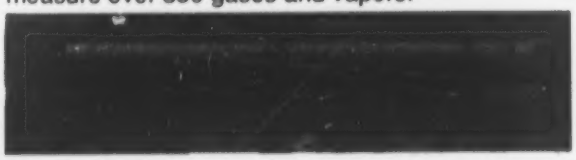
Current users of Draeger products include NASA, OSHA, MSHA, and the US Navy, in addition to industry.

In fact, Draeger products are used in virtually any situation where there is a potential danger to human life or health.

1930

As early as the 1930's Draeger recognized the increase in industrialization, and the potential hazards of gases, vapors and aerosols at home and at the workplace.

Draeger tubes are quickly able to detect the volume of specific gases and vapors. To date more than 200 tubes have been developed, to detect and measure over 350 gases and vapors.



Gas measurement is a Draeger specialty and makes use of highly sensitive sensors and the very latest microelectronics.

1980

Draeger develops portable and fixed gas detection units to measure momentary concentrations and mean values; and to serve as warnings in the event of gas or explosion risks.

Today, you can find Draeger ready with the best products, training, service, and technical assistance available to help you meet the most demanding requirements for breathing safety.

1989

New Challenges

Innovation and experience provide Draeger with its complete line of products for use today... and tomorrow.

100 years
Technology for life

Dräger

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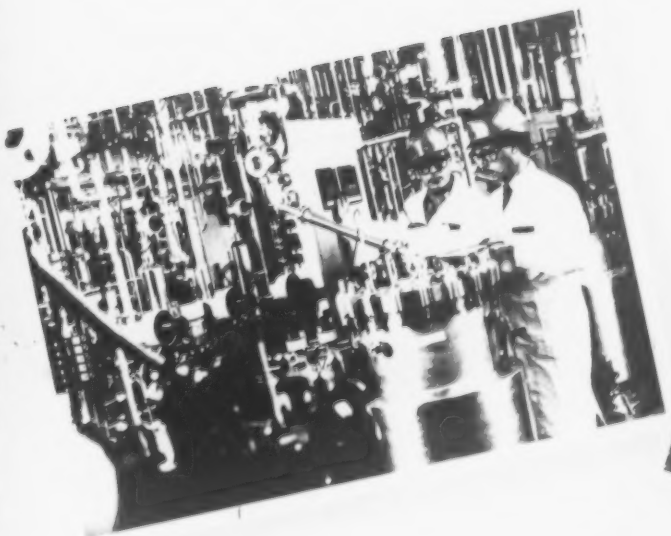
Draeger Canada Ltd., 5925 Airport Road, Suite 200,
Mississauga, Ontario L4V 1W1 (416) 671-0629.

CORPORATE STRATEGIES



Seatbelts save lives. Don't drink and drive.

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International symbol for value.

They're all around you. Symbols of every kind. But when you see this one, we want you to think of one thing.

Value.

The word has been synonymous with Volkswagen for over 40 years. And 1990 will be no different. We're launching all 1990 carry-over models by giving you more Volkswagen for your dollar than last year. No price increases on *any* Fox, Golf, Jetta, GTI, Cabriolet or Vanagon. That's right, across the board. And even better, many models have upgraded standard-feature lists, giving you even more.

Value for your dollar.

It's the objective that 250,000 Volkswagen employees worldwide share in common. And it must be working, because not only are all of our models the same price as last year, but many comparably equipped models now cost you less, due to this commitment. We think that spells out one thing.

Value year after year.

There are, however, two Volkswagen models that we didn't even consider lowering prices on. They are brand new. The Volkswagen Corrado and Passat capsulize where Volkswagen is heading in the 90's. Corrado is an inter-cooled, supercharged 158 h.p. sports car. Passat is a five-passenger sedan that has already taken Europe by storm. Even though you're not yet familiar with them, just knowing they are Volkswagens should tell you they deliver.

Exceptional value.

We think our new pricing strategy is a logical step in the evolution of our heritage. Think about all of the good things that make a Volkswagen a Volkswagen. . . they still hold true today. A car without pretense. Real European character. Rewarding to drive. And, of course, a car that brings one word to mind.

Value.

So when you're thinking about buying a car in the weeks or months to come, and if you very much like to get good value for your dollar, visit a Volkswagen dealer and get some hands on experience. We invite you to join the growing family of discerning car buyers who have become Volkswagen owners.

It's time to think about Volkswagen again.

Eine strategische Partnerschaft auf der Grundlage gegenseitigen Respekts

Hoechst Celanese and Hoechst AG: A Strategic Partnership Based on Mutual Respect

Dr. Ernest H. Drew
President and Chief Executive Officer
Hoechst Celanese Corporation

Hoechst Celanese Corporation resulted from the acquisition in early 1987 of the $2.8-billion Celanese Corporation, which was merged with Hoechst's $1.7-billion subsidiary, American Hoechst. The merger created for Hoechst a large presence in the U.S., where Hoechst Celanese is now the fifth largest chemical company. With sales of $5.6 billion in 1988, we are the largest subsidiary of the Hoechst Group and account for more than 20 percent of its sales. In 1988, our sales increased 20 percent over the previous year's and our net after-tax earnings of $250 million was 50 percent higher. We have been investing capital at a rate of $400 million a year, 1.8 times depreciation. In addition to expansion here in the United States, we are participating with our parent company in several new investments abroad.

These numbers underscore the success of the merger, but tell only part of the story. The key to our success lies in the ground rules that Hoechst set from the outset of the merger. The architects of the merger, Professor Dr. Wolfgang Hilger, Hoechst AG Chairman, and Juergen Dormann, Hoechst AG Chief Financial Officer and board member in charge of North America, sought an American company that was well-managed and had sufficient infrastructure and research to support major investments in North America.

The Concept

With its global experience, Hoechst knew that in order to be successful in the American market, or for that matter any foreign country, a subsidiary needs to be run in the style of that country. Hence, Hoechst Celanese was to be an American company in operational style, linked to the German parent strategically through a partnership based on mutual respect. For example, business strategies and investment plans are developed jointly. Hoechst Celanese then uses the organizational and management style needed to successfully implement these strategies and plans in North America.

The key to our success lies in the ground rules that Hoechst set from the outset of the merger.

I believe this is the critical element in the ground rules. It focuses and builds on the strengths of the companies and their culture, not on their differences. Hoechst's broad international experience, long-term perspective and commitment to a strong technological base are the underpinnings of successful strategic positioning. Hoechst Celanese's management style, as represented by the Values (see Chart), is characteristic of the more successful U.S. companies.

I have to admit that, based on perception, this is not a common relationship between a foreign parent company and its subsidiary on either side of the ocean. In fact, when the merger was announced in late 1986, many American managers at Celanese Corporation envisioned an environment of tight control under German management. They soon saw, however, that this was not the case. Business managers interacted with their counterparts in Frankfurt constructively and were allowed to run their businesses as they had in the past.

From the very beginning, there was the realization that linking the two organizations through technology was vital to the success of the acquisition. It's not surprising that the first joint group formed was the Technology Steering Committee. Co-chaired by employees from Hoechst and Hoechst Celanese, the committee has coordinated long-range research activities and sponsored an interchange of about 20 scientists from both organizations. Similar steering committees have also been formed within several *Bereiche* (divisions) in order to help coordinate R&D programs, strategies and tactics and open the lines of communication. We've extended this early success in our exchanges of people and technology to other functions such as marketing and administration.

Business managers interacted with their counterparts in Frankfurt constructively and were allowed to run their businesses as they had in the past.

Within the U.S. organization, potential areas of conflict were eliminated by the decision to combine the U.S. entities into one company, Hoechst Celanese, as opposed to maintaining separate identities for American Hoechst and Celanese. This approach was also extended to benefits, policies and procedures. Study teams, known as Quality Action Teams at Hoechst Celanese, recommended programs based on the future needs of the company and employees, not on what was in place before. These programs are uniform throughout Hoechst Celanese and are competitive with what other U.S. companies offer.

"Values" and a Common Corporate Culture

Also contributing to Hoechst Celanese's identity as one company was the establishment of one common culture. Employees throughout the organization participated in the development of what we call our Values (see Chart). While these values are unique to Hoechst Celanese, they are compatible with Hoechst's own Guiding Principles for its world organization. Like other Hoechst subsidiaries, the specifics for implementation are consistent with the local environment and compatible with the overall philosophy of the parent corporation.

Covering Performance, People and Process, our Values identify us as a customer-driven company that encourages teamwork, open communication and decision making at the lowest practical level. We are committed to safety, employee health, and the protection of the environment, as well as equal opportunity for all our employees to achieve their own potential.

The Values have not only made Hoechst Celanese a better place to work, but they have also reaped bottom-

The Hoechst Research Center in Frankfurt, West Germany is one of the largest non-governmental, non-academic research centers in the world

line results. One example is how we've been putting our Value, *Decision making at the lowest practical level*, into action. At our Salisbury, N.C., fibers plant, 40 percent of the employees are part of self-directed work teams that make decisions previously carried out by their supervisors. We believe that the people who actually do the job are best qualified to make decisions affecting their work. These teams have reduced the plant's costs by at least $8 million annually through productivity improvements. Employees there are also more committed to the company and enjoy their jobs more. Through this type of commitment and practice of our Values throughout the organization, Hoechst Celanese has achieved productivity improvements of 10 percent a year since the merger.

...our Values identify us as a customer-driven company that encourages teamwork, open communication and decision making at the lowest practical level.

Another strength of our organization is that our senior management team is made up of people from a mix of backgrounds—Hoechst, American Hoechst and Celanese. In order to focus the organization for future growth, Hoechst Celanese recently reorganized into five business groups. They are Advanced Materials, which includes engineering plastics; Advanced Technology; Chemicals; Fibers and Film; and Life Sciences. Considering Hoechst's strengths, it's not surprising that the member of this team with responsibility for Advanced Technology came from Hoechst.

The East Tower of the Hoechst Group world headquarters in Frankfurt. More than 30,000 people work in the complex.

Values

Performance

- Preferred supplier, dedicated to understanding and meeting customer expectations
- Commitment to safety, employee health and protection of the environment
- Responsible corporate citizen
- Earnings to support long-term growth
- Consistently superior to competition
- Commitment to continual improvement

People

- Respect for individuals and appreciation for contributions each can make
- Diversity accepted and valued
- Concern and fair treatment for individuals in managing business change
- Equal opportunity for each employee to achieve his or her potential
- Employee pride and enthusiasm
- Informed employees through open communication

Process

- Openness and trust in all relationships
- Innovation, creativity and risk taking encouraged
- Teamwork throughout the organization
- Participative goal setting, measurement and feedback
- Decision making at the lowest practical level
- Actions consistent with clearly understood mission and long-term goals
- Recognition for quality achievements
- Resources committed to ongoing training and development

Worldwide Impact

The strength of our interactions is leading to other changes as people get to know each other better and opportunities open up. For instance, Tom Bohrer, from Hoechst Celanese, recently was appointed to head a new *Bereich* (division) which will direct the engineering and high-performance of plastics products businesses with Hoechst throughout the world.

Listed below are other examples of how the relationship with our parent company has impacted investments and businesses worldwide:

- *Technical Fibers*
  Hoechst Celanese technology and expertise in high-tenacity polyester filament for tire and rubber applications is the basis for a major investment in the Pacific Basin. It utilizes Hoechst's superior infrastructure in that region as well as in Europe where polyester is replacing the rayon-dominated tirecord markets. On the other hand, Hoechst expertise in high-denier polyester filament for non-rubber applications, such as yarns for fabric, is being utilized in a

major investment in the U.S.

- *Engineering Plastics*
  A partnership involving Hoechst, Hoechst Celanese, Polyplastics (a Hoechst Celanese joint venture company in Japan), Hoechst Taiwan and the Chang Chun Group in Taiwan is investing $100 million in Taiwan to manufacture and sell engineering plastics. This venture builds on the contribution of technology, infrastructure and market know-how from the various partners.
- *China*
  Hoechst Celanese is in a joint venture with the China National Tobacco Corporation to produce acetate tow for cigarette filters. Startup is expected next spring. The relationships formed through this venture have helped broaden the Hoechst relationship in China. Recently, Joo Tan, from the Hoechst Celanese organization, was named the Hoechst country manager for China in Hong Kong, effective Jan. 1, 1990. This assignment will help focus our various activities in that area.
- *Pharmaceuticals*
  In its recent reorganization, Hoechst established five product group units worldwide in order to focus resources into specific therapeutic areas. Hoechst-Roussel Pharmaceuticals Inc. (HRPI), a Hoechst Celanese subsidiary, is the center for neuroscience research and development. In this capacity, it has a major effort in developing drugs to treat such diseases as Alzheimer's disease and schizophrenia.

Coping with the Language Barrier

I'm frequently asked by colleagues in other U.S. companies about my proficiency in German. Unfortunately, for most Americans, learning a language is difficult because unlike Europeans, we have little exposure or good training in foreign languages. This lack of exposure makes us unfamiliar and uncomfortable with cultures other than our own.

In this respect, our German colleagues have been much more accommodating than we have. Most Hoechst managers speak English well and readily adopt the informal American style when they visit the U.S. On the other hand, we tend to expect everyone to relate the same way we do no matter where we are.

I have found that by learning some German (I'm still taking lessons), one also learns the culture and gains a degree of confidence in that unfamiliar environment. I encourage my managers to take some German lessons for this reason and not so much with the expectation that they will be able to conduct business discussions in German. However, the up and coming younger managers should have an opportunity to spend time in Germany as part of their career development and thus be able to achieve a higher level of proficiency.

I have found that by learning some German...one also learns the culture and gains a degree of confidence in that unfamiliar environment.

Our relationship with Hoechst has been extremely positive. With Hoechst's investment in and commitment to the American market, Hoechst Celanese is a major factor in the U.S. industrial market that can compete with the DuPonts and Dows. We play an active role in industry initiatives and in the affairs of our plant communities. Being known as an American company with strong technological and global ties to Hoechst enhances our performance and attracts qualified employees. In addition, we are a partner with our parent company in setting strategies for expansions in the U.S. and other parts of the world. □

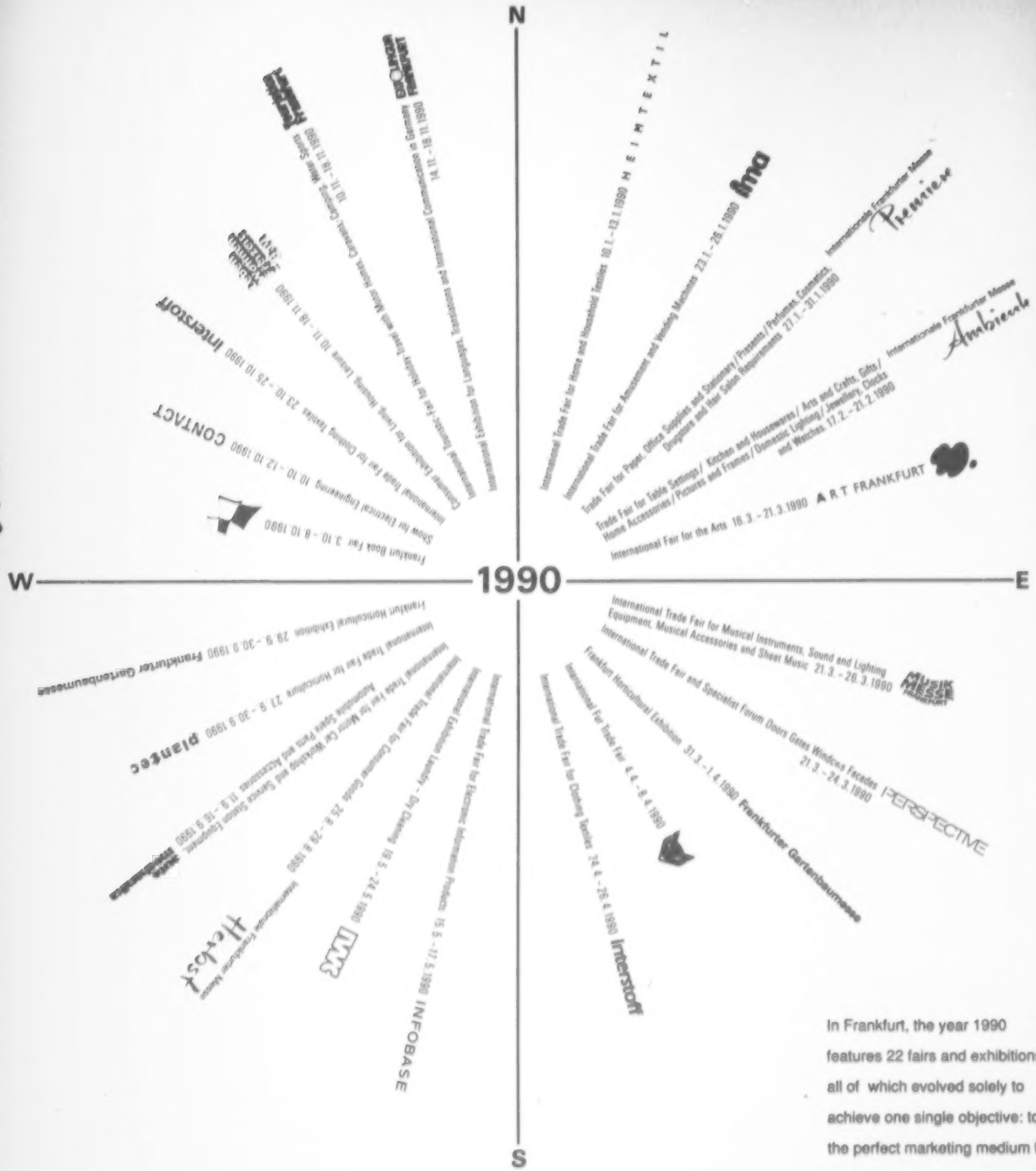
Ueberblick

Eine strategische Partnerschaft auf der Grundlage gegenseitigen Respekts

Hoechst Celanese Corporation entstand Anfang 1987 durch den Erwerb der Celanese Corporation, die mit der amerikanischen Tochtergesellschaft von Hoechst, Hoechst Amerika, verschmolzen wurde. Der Zusammenschluss bedeutete fuer Hoechst eine Verstaerkung seiner Praesenz in den USA, denn Hoechst Celanese ist das fuenftgroesste Chemie-Unternehmen auf dem amerikanischen Markt. Mit Umsaetzen im Wert von 5,6 Milliarden $ in 1988 sind wir auch das groesste Tochterunternehmen der Hoechst-Gruppe. Aufgrund seiner weltweiten Erfahrung wusste Hoechst, dass es unerlaesslich ist, das Tochterunternehmen nach amerikanischen Regeln zu fuehren, um auf dem Markt erfolgreich sein zu koennen. Deshalb ist Hoechst Celanese, was den Betriebsstil anbelangt, ein "amerikanisches" Unternehmen, das mit der Muttergesellschaft strategisch durch eine Partnerschaft auf der Grundlage gegenseitigen Respekts verbunden ist.

Die Partnerschaft mit Hoechst ist aeusserst positiv zu bewerten. Hoechst Celanese ist, dank der Investition und dem Engagement von Hoechst auf dem amerikanischen Markt, zu einem bedeutenden Faktor in der Industrielandschaft der USA geworden; mit DuPont und Dow vermoegen wir durchaus zu konkurrieren. Wir spielen eine wesentliche Rolle nicht nur bei Initiativen in unserem Industriebereich, sondern auch in Angelegenheiten der Kommunen, in denen sich unsere Betriebsstaetten befinden. Unser Ruf als amerikanisches Unternehmen mit starken technologischen und weltumspannenden Bindungen an Hoechst staerkt unser Erscheinungsbild und macht uns fuer qualifizierte Arbeitskraefte attraktiv. Wir sind ueberdies ein Partner, der—zusammen mit seiner Muttergesellschaft—Expansionsstrategien sowohl in den USA als auch in anderen Teilen der Welt entwickelt. □

Spring, Summer, Autumn and Winter.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International Trade Fair for Home and Household Textiles 10.1.–13.1.1990 HEIMTEXTIL
International Trade Fair for Amusement and Vending Machines 23.1.–26.1.1990 ima
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Internationale Frankfurter Messe Premiere
Trade Fair for Table Settings/Kitchen and Housewares/Arts and Crafts, Gifts/Home Accessories/Pictures and Frames/Domestic Lighting/Jewellery, Clocks and Watches 17.2.–21.2.1990
Internationale Frankfurter Messe Ambiente
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Show for Electrical Engineering 10.10.–12.10.1990 CONTACT
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International Trade Fair and Specialist Forum Doors Gates Windows Facades 21.3.–24.3.1990 PERSPECTIVE
Frankfurt Horticultural Exhibition 31.3.–1.4.1990 Frankfurter Gartenbaumesse
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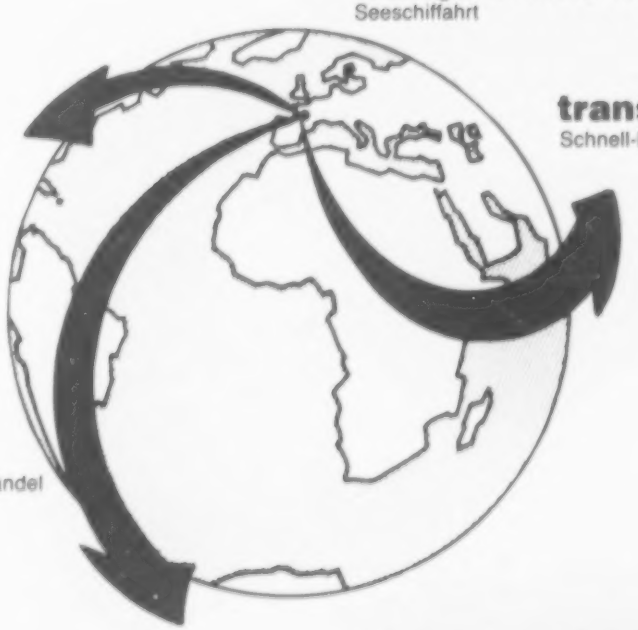

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McDonald's — Ein internationales Unternehmen auf Erfolgskurs in Deutschland

McDonald's: A Global Business on the Fast Track in Germany

Walter Rettenwender
Chairman of the Board
McDonald's Deutschland Inc.

The Federal Republic of Germany is a country that upholds a great gastronomic tradition. Few Western countries can offer the gastronomic variety that is available in West Germany. The *new German cuisine*, replete with celebrated chefs and gourmets, has set new trends. Restaurants featuring the cuisine of foreign lands, in addition to those that specialize in German regional or local specialties of the highest order, find an enthusiastic clientele.

Alongside quality and variety, contemporary gastronomy is also characterized by contrasting trends: concepts such as a full-value cuisine, gourmet and fast-food restaurants describe new, specialized forms of gastronomy, which, as experience has shown, are all accepted and patronized by the same consumers.

Sweeping changes in attitudes towards work and leisure time, the pronounced trend towards single households, the rise in the number of women pursuing careers, increased disposable income, and more leisure time, paired with a perceived need to save time in everyday life, all these factors have led to changed consumer behavior that has created new choices for eating out. Snacking and eating at odd hours have tended to erode the traditional custom of two main meals in the day—at midday and in the evening. Increasingly, the evening meal with its attendant social and familial content, yes, even a certain cultural value, is eroding the importance of the other fixed meals of the day.

Observing Consumer Patterns

The consumer has become younger and more mobile, and eating out has become far more important. Services that help to *unburden* the consumer are finding growing acceptance. The expectation of consistency has become an essential sales tool. Similarly, today's consumer prefers a consistent menu to chose from. Changes in society and consumer preferences have been leading catalysts of this trend.

If the consumer at the beginning of the 1980s was an *either/or type* who generally patronized either a normal

The consumer has become younger and more mobile,...

restaurant or a fast-food outlet, he has now become an *as well as/and consumer*. This individual is amenable to eating in normal, everyday restaurants, better-class restaurants, or fast-food *a la* McDonald's, each depending on the situation or the need. This person is more open, more willing to spend, and more emancipated. This new consumer profile was recognized by the restaurant establishment quite late, if at all, and even then only in part.

A McDonald's drive-in restaurant (McDrive) in Munich.

Traditional restaurants had nothing on their menus for children and youngsters; this vacuum was identified by the fast-food industry, and has become an important element in its concept.

The welcome extended to children and families since the opening of McDonald's first restaurant has set a new tone in the Federal Republic. Children in McDonald's restaurants are not a troublesome minor constituency, but welcome guests and individual clients with their own needs, whom the restaurant should accommodate. Fast-food restaurants like McDonald's are a part of the restaurant branch, and offer—in addition to a standardized menu with a limited number of food items of high quality—fast service and low prices.

The evolution of the food service industry in West Germany represents the mirror image of contemporary society...

If traditional restaurants in the industry are characterized by units that each possess their own unique character and interchangeable features, the so-called system restaurants work according to brand-name concepts. System restaurants, e.g., McDonald's, developed parallel to the traditional line of restaurants and created chains that have the characteristics of a brand-name product.

The evolution of the food service industry in West Germany represents the mirror image of contemporary society in the Federal Republic. McDonald's is an alternative choice within the large spectrum of restaurants that today comprises some 140,000 eateries in Germany (excluding hotel restaurants).

In essence, McDonald's provides a support system for consumers who want to eat quickly and at moderate prices in the course of their daily lives. In addition, it provides families and their children both an enjoyable eating experience and a leisure-time activity.

Since 1971, McDonald's has succeeded in creating a dynamic business that provides an optimum response to the growing demand in the Federal Republic for fast-food service. The locations of McDonald's restaurants are selected with he customer's convenience in mind. Situated in pedestrian shopping areas, railroad stations, next to autobahns, and on main arteries and squares, McDonald's restaurants are readily accessible at a minimal expenditure of time.

Increasing mobility, the car as a means of transportation and the expression of comfort, combined with the perceived need on the part of customers to use their time more efficiently, led McDonald's to develop free-standing drive-in restaurants (McDrive restaurants).

Establishing a Brand Name

The selection of food items offered by McDonald's comprises a self-contained brand-name system. For the consumer this means products of consistently high quality. Growing brand-name consciousness in the Federal Republic has also created a growing acceptance of our restaurants. McDonald's has recognized new trends in the restaurant business as well as in consumer tastes, and translated these into a successful business. The company's principles of quality, service, cleanliness, and moderate cost have enabled McDonald's and its licensees to become a huge restaurant organization and, as a result, the market leader.

McDonald's considers itself to be a part of the German restaurant industry. Its efforts for the future will be to continue to assert its position as an alternative within the current broad spectrum and to maintain its reputation, and thus serve consumers by helping them to maintain their freedom to choose according to their needs and preferences.

McDonald's Deutschland is a fully-owned subsidiary of the McDonald's corporation in Oak Brook, Illinois, and has been operating in the Federal Republic since 1971. Today, McDonald's is a leader in the restaurant industry, a position it was able to strengthen and expand in 1988. Net sales of McDonald's Deutschland and its licensees rose in 1989 to DM 910 million, a jump over the previous year (DM 774 million) of 17.6 percent.

Early Problems

The introduction of McDonald's systems and its products was hardly free of problems at the beginning.

Stories appeared throughout the press and other media about the alleged deterioration of German eating habits and the demise of German restaurants under the impact of McDonald's, this despite the fact that German restaurants had been retreating for some time with regard to affordability and imaginative menus under the assault of Italian, Chinese, and other restaurants offering exotic fare.

Dishes were put on the menu that were congenial to German tastes, but which did not lend themselves to automated preparation. As a result, quality was inconsistent.

The design of the first McDonald's was tailored to German tastes, but still failed to achieve the anticipated success. McDonald's only succeeded in becoming the family restaurant it wanted to be after switching from

such interior decorating features as dark colors, wooden paneling, indirect light and booth dividers to a more engaging atmosphere created by bright colors, large windows and improved lighting as well as the inclusion of child-oriented equipment.

Concept for Success: Licenses

In 1989, McDonald's business in Germany included more than 300 restaurants, employed 21,000 people and served some 800,000 customers daily.

The success of McDonald's approach is principally based on a philosophy of delegating responsibility and trust down to the smallest unit. McDonald's is an idea and a brand that is translated into action by its licensees and employees. In Germany more than two-thirds of the existing McDonald's restaurants are operated by licensees as independent, medium-sized operations. This approach is a major component for McDonald's overall growth.

McDonald's licenses rank among the most desirable available in the Federal Republic of Germany. They are only granted to individuals who are prepared to devote their entire entrepreneurial commitment and professionalism to the operation of their McDonald's restaurant exclusively.

The contracts run for 20 years and are limited to a specific site. McDonald's licensees carry the entire responsibility for the operation of their restaurants. For this reason McDonald's does not permit partnerships, or open or silent participation by third parties in the licensees' company. McDonald's, therefore, does not qualify for merely investment purposes by outsiders.

McDonald's locates, buys and rents suitable sites and builds the restaurant. The licensee has to finance the interior and exterior installations, kitchen and all signs.

In addition, McDonald's usually offers interesting growth prospects for licensees. More than half of them already manage two or more restaurants.

The prospective licensee has to meet a number of qualifications and also enroll in a tough, multifaceted training program designed to give him the know-how to operate within the McDonald's system and put him in the position to operate his restaurant successfully from the very start.

Based on their experience, McDonald's licensees contribute to the further development of corporate business policies through advisory and decision-making panels, particularly in respect to launching and organizing regional and supraregional advertising and public relations campaigns. Licensees exercise a major influence on all questions involving cooperation within the McDonald's system.

McDonald's Provides Thousands of Jobs

McDonald's-Deutschland Inc. employs 9,000 people in its own 120 restaurants. Women account for 50.5% of the jobs and for 46% of the executive positions in restaurant management. The number of employees in administration grew by 10%.

For six years McDonald's-Deutschland has been training youths in professions recognized by the German chambers of industry and commerce. A special training program is devoted to the continuing development of restaurant management and licensees.

The interior of a McDonald's restaurant in Munich. The interiors are designed to suit contemporary tastes.

The workhours in the restaurant business, be they traditional or fast-food establishments, fluctuate with respect to season and time of day. The fluctuations during the day make additional personnel necessary at certain times. As a result, McDonald's has become a major employer of part-time help. It is in a position to offer attractive opportunities for all those who for personal reasons are interested in a job for certain periods during the day. Students and housewives can find work in keeping with the time they have available. Such flexibility dovetails with their other obligations.

The Federal Republic of Germany is an expensive base of operations due to the high level of its wages, salaries and benefits as well as the least number of hours worked. McDonald's hourly rates, including voluntary contributions, rose by 26% from 1983 to 1988. Despite these increases McDonald's succeeded on the basis of productivity gains to maintain its competitive position in the restaurant business.

The Big Mac, the same burger, whether in New York, Munich, or Moscow.

McDonald's Suppliers as Resources

Due to growing demand, purchases by McDonald's-Deutschland rose by 11 percent to more than DM 300 million in 1988. In keeping with its corporate philosophy, McDonald's strives to fill all its requirements locally. Its supplies are therefore either bought in Germany or in the European Community.

For instance, it purchases 99 percent of its beef in the Federal Republic and 1 percent in the European Community. Of this volume, more than 80 percent originates in Bavaria. Food and non-food costs remained stable. Sharp advances in the cost of beef were compensated by efficiencies achieved in the new Duisburg production and distribution center.

The high standard of quality maintained by McDonald's applies also to the selection of its suppliers. Their commitment and flexibility contribute to the high level of product quality. Quality and price continuity at McDonald's is based on well-established, long-standing partnerships with its suppliers. In some cases these relationships date to 1971 when the first McDonald's restaurant opened in Germany. This history of cooperation and trust is the foundation of McDonald's success in the marketplace.

Environmental Protection—A Major Consideration

Adherence to environmental protection practices is another vital component of McDonald's corporate policy. It represents a response developed over the years to the German population's growing and still increasing concern for the environment.

A study commissioned by the European Community has confirmed McDonald's experience: the population of the Federal Republic is far more sensitive to environmental developments than other European countries.

The decision taken jointly by McDonald's and its suppliers in May, 1988 to abandon the use of chlorofluorocarbon-foamed packaging marked a major step forward in the company's exercise of its environmental responsibility. McDonald's made the change to new foaming agents for its polystyrene packaging two years ahead of the 1990 deadline that per agreement had been specified for a switch from chlorofluorocarbon.

German environmental discussions also focused in 1988 on such concerns as the destruction of tropical rain forests. Several interest groups also attacked McDonald's on this score. The company explained that it does not use any meat originating in rain forest areas for its products. Stipulations specified by McDonald's obligate all its vendors not to supply any meat or products processed from those areas. Corporate policy calls for reliance on local supplies for processing McDonald's products.

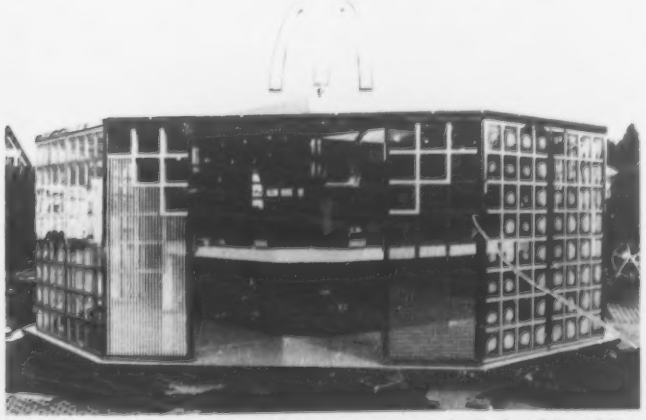
Since the company's formation, it has been its guiding principle in planning new buildings and facilities to use natural resources sparingly and create the least possible impact on the environment. Much forethought goes into the planning of McDonald's restaurants. For instance, all restaurants built since 1982 have been voluntarily equipped with heat recovery systems as well as electrostatic kitchen exhaust filters. Exchangers in the refrigeration plants heat the water supply.

...the population of the Federal Republic is far more sensitive to environmental developments than other European countries.

Since 1987, McDonald's Deutschland and its licensees have been working on reducing the waste volume. While the quantities are small in the context of the Federal Republic as a whole, they are, however, a serious concern for the company.

As a result of these efforts, one-third of the solid waste, consisting of cardboard boxes, is already being recycled. Analyses show that another third represents kitchen wastes and left-overs; the possibility for their recycling is currently the subject of various test programs. At the end of 1988, a number of different test projects were being conducted largely at the community level. The recycling of organic wastes was expected to have been introduced throughout the Federal Republic by year-end 1989. The remaining third of the waste contains film and soiled plastics. Recycling of plastic films and packaging has already been initiated. Plastics that still have foods adhering to them are being tested for reuse in a number of different research projects.

In the search for solutions that conform to the German waste disposal law, McDonald's works with a number of different institutes, experts as well as its suppliers. Altogether more than DM 1.5 million were invested in such projects during 1989.



McDonald's has more than 300 restaurants in the Federal Republic.

Conclusion

Within barely two decades McDonald's in Germany has made a name based on its singular success in achieving a development and expansion unmatched in the German restaurant business. It has compiled a record as a company that almost revolutionized Germany's restaurant business. It has introduced new ideas and like no other enterprise adjusted its corporate concepts in keeping with changes in consumer preferences. □

Ueberblick

McDonald's—ein internationales Unternehmen auf Erfolgskurs in Deutschland

Durch Familien- und Kinderfreundlichkeit hat McDonald's seit der Eroeffnung des ersten Restaurants in der Bundesrepublik neue Akzente gesetzt. Kinder sind in McDonald's-Restaurants kein laestiges Anhaengsel, sondern willkommener Gast und selbstaendiger Kunde mit eigenen Beduerfnissen, denen der Gastronom Rechnung zu tragen hat. Schnell-Service-Restaurants, zu denen sich auch McDonald's zaehlt, sind Bestandteil der System-Gastronomie und bieten, neben einem standardisierten und damit begrenzten Produktangebot auf hohem Niveau, zusaetzlich schnellen Service, verbunden mit niedrigen Preisen.

Wird die klassische Gastronomie vom individuellen Restaurant mit seinen unverwechselbaren Merkmalen gepraegt, so arbeitet die System-Gastronomie nach markenaehnlichen Konzepten. So hat sich die System-Gastronomie, wie z.B. McDonald's, neben der Individual-Gastronomie entwickelt und hat heute den Markenartikelcharakter in der Gastronomie entstehen lassen.

McDonald's Deutschland 1989: das bedeutet mehr als 300 Restaurants, 21.000 Mitarbeiter und rund 800.000 Kunden taeglich.

McDonald's- dieser Name steht in Deutschland fuer ein Unternehmen, dem es in knapp zwei Jahrzehnten gelungen ist, eine fuer die deutsche Gastronomie einmalige Entwicklung und Expansion zu vollziehen. Ein Unternehmen, das in beinahe revolutionaerer Art und Weise die traditionelle deutsche Gastronomie veraendert hat, neue Impulse vermittelt und wie kein anderes Unternehmen Veraenderungen im Konsumverhalten der Bevoelkerung in seinem Unternehmenskonzept verarbeitet hat. □

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Deutsches und amerikanisches Management — Gemeinsamkeiten, Unterschiede und Probleme

German and American Management: Similarities, Differences, and Problems

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This essay originally appeared in the series "German Issues", published by the American Institute for Contemporary German Studies, and was the result of discussions with German and American corporate executives hosted by the Institute in Washington and in New York during 1988 and 1989. The publication was made possible by a grant from McKinsey & Co.

R. G. Livingston
Director
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America, despite current defense and trade-related differences of opinion, does remain Germany's best friend. In the past 40 years these two nations have built an alliance based on many common interests: political (the NATO alliance), cultural (Germany's indispensable contribution to the American melting pot) and certainly macroeconomic (approximately $42 billion in trade in 1988). In recent years this national partnership has been strengthened by new and increasing ties on the microeconomic level. American companies have throughout the post-war period maintained significant foreign direct investment in Germany; in the last five years this capital flow has been balanced by significant German investment in the United States. Hoechst's acquisition of Celanese and the Bertelsmann purchase of Doubleday are only two celebrated examples.

And so not only politicians and economists but also managers in both the United States and West Germany have come into closer contact with one another. The business of individual companies has come to transcend national boundaries, truly successful enterprises have learned to function effectively in many environments, blending the strengths of each management culture to produce an effective formula for global success.

To help focus on these individual strengths, it is helpful to reduce abstract macroeconomic discussions to a more concrete look at two fictional examples of individual companies. Both are successful, both are well-rooted in their national cultures and both are now facing the challenges of competing in markets outside these national cultures where new and unfamiliar rules and factors for success apply.

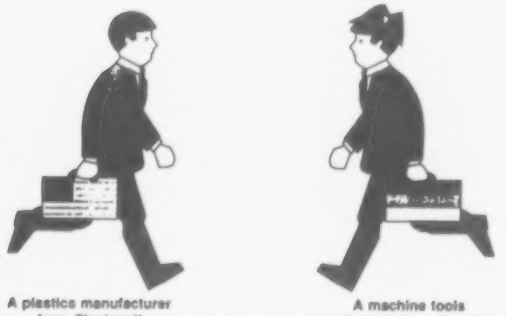
Hoechst's acquisition of Celanese and the Bertelsmann purchase of Doubleday are only two celebrated examples.

On the American side, an example is provided by a plastics manufacturer in Cincinnati, Ohio. From modest beginnings decades ago, this company has, through prudent management and continuing innovation in its product line, grown to pass over $1 billion in sales. Five years ago, the founding family took the company public and reduced its holdings to a minority stake. The stock has since more than tripled on the New York Stock Exchange. The current CEO holds an MBA from Wharton —his chief financial officer joined one year ago, crowning a successful career covering half a dozen Big Eight accounting firms and regional banks.

In contrast, a German success story might be taken from a small machine tools manufacturer in Reutlingen,

in the hills south of Stuttgart. The company, a Kommanditgesellschaft, is wholly owned by the 75-year-old grandson of the founder; he will soon retire, leaving the enterprise in the capable hands of his two sons, both of whom have spent virtually all their working lives learning the business from the shop floor up. The family can be proud of what they have built: the products are geared to a precision unequalled worldwide, and bottom-line profitability (never published even to the local house banks) is well in excess of 10 percent of sales.

A MICROECONOMIC PARTNERSHIP



A plastics manufacturer from Cincinnati

A machine tools manufacturer from Reutlingen

As these two companies face an increasingly global marketplace, how well will their past successes help them in competing on a new and larger terrain? How exportable are their skills? What lessons can they learn from one another? The varied experience of managers of large and medium-sized companies in both Germany and the United States over the years provides a rich basis for exploring this question and shows that there are lessons that German and American managers can teach each other which will enhance success for each, as well as strengthen the overall German-American partnership.

The United States: Fundamentals of Success

To what does the Cincinnati plastics manufacturer owe his success? It seems clear that, like many other successful American businesses, it has profited from following some basic principles—three fundamental management strengths which continue to be lessons that American business in general can teach its German counterparts. They are:

- *Entrepreneurial spirit*—the *can do* philosophy which questions limits and places a premium on action and progress
- *"Close to the customer"*—the ingrained idea that the customer is king and that service to the customer is paramount
- *Professional education*—a post-graduate management education system which is unequalled by any other nation

A closer look at each of these should help to clarify the strengths.

1. *Entrepreneurial Spirit*

The greatest strength of American industry is difficult to analyze or prove—quite simply it is the basic dynamism and drive of this *land of unlimited possibilities.* It is the flexibility, motivation and openness to risk-taking of American management—especially in smaller, start-up businesses. The extent to which this is maintained in larger companies very much determines the degree of success of American business in general.

...there are lessons that German and American managers can teach each other which will enhance success for each...

Evidence of this comes from The World Economic Forum in Switzerland, which produces an annual *World Competitiveness Report* of the 22 OECD nations. It has, despite numerous well-founded analyses of the *decline of America*, consistently given the #1 or #2 ranking to the USA. This is due primarily to high scores given in qualitative factors of competitiveness such as managerial talent or labor flexibility. Other, more quantitative evidence of the dynamism of the American private sector includes the still unequalled level of output per employee, the unparalleled wealth of venture capital available to any manager with a good idea and the ongoing economic recovery fueled by employment produced in companies with less than five employees.

In America, the source of national well-being is the success of each individual entrepreneur. This is a country in which personal wealth, if earned from the ground up, can be displayed without stigma—economic *winners* enjoy social prestige and are supported by a macroeconomic system geared to maximize the benefits of free enterprise.

Germany, by contrast, remains a basically cautious and inflexible nation. Despite five years of an avowedly pro-business government, German managers still face, at least nominally, a 70 percent total corporate tax rate, a banking network which owns a major part of private industry in the country and a fiscal environment which continues to devote a tremendous share of public resources ($70 billion in 1987, up 25 percent since 1983) to maintaining the status quo in sunset industries (coal, steel, shipbuilding, etc.). Perhaps dispirited by these constraints, top management tends to be collegial, circumspect and rigid in its approach—characteristics which pose a danger to long-term success in an environment of ever-shortening product life cycles and market-changing technological breakthroughs.

2. *"Close to the customer"*

This simple business principle, discussed extensively in *In Search of Excellence*, is based on what seems a truism: that no business can function unless it makes a sale, unless it produces a good or service which is of value to a customer. It is the customer's act of faith in making his purchase that starts the process leading to investment, employment and growth.

The American economy, more than any other, is

geared towards services. It is no accident that in this country services now make up 55 percent of GNP (against 41 percent for West Germany), and it is well known that a major share of the impressive job creation of the last five years is due to growth in services. American business, again despite popular cries of deteriorating service, is still largely based on the premise that the customer is king—that he has a right to ever more convenience, ever more responsiveness, ever more selection as he makes his purchasing decisions.

Examples of individual American firms who have built a competitive advantage on the simple principle of excellent service to the customer abound: Procter & Gamble, which in 1979 introduced the 800 customer service number on its packaging; Frito-Lay, which goes to enormous lengths to guarantee that customers will find its products in stock 99.5 percent of the time; IBM, with its willingness to invest in a major way in sales and service training; and, more recently, Domino's Pizza, which transformed a mature and saturated market with the simple principle of an on-time delivery guarantee.

COMMITMENT TO THE CUSTOMER

Examples of Competitive Advantage Achieved through Service

COMPANY	COMPETITIVE ADVANTAGE ESTABLISHED THROUGH:
IBM	Absolute commitment to service Every customer complaint answered within 24 hours
Frito-Lay	10,000 person sales force; 99.5% service level
Walt Disney	Not *customers* but *guests*
3-M	48-hour guaranteed fast delivery anywhere in the world
Procter & Gamble	1979 establishment of 1-800 customer service number on package (first in industry)
Domino's	30-minute delivery guarantee or $3.00 discount

German managers, on the other hand, are raised in a society which does not place nearly as high a premium on the needs and wants of the customer; convenience and service are not as valued in their country as in the U.S. The great strength of German industry is attention to quality—but often for its own sake rather than to meet a perceived customer need.

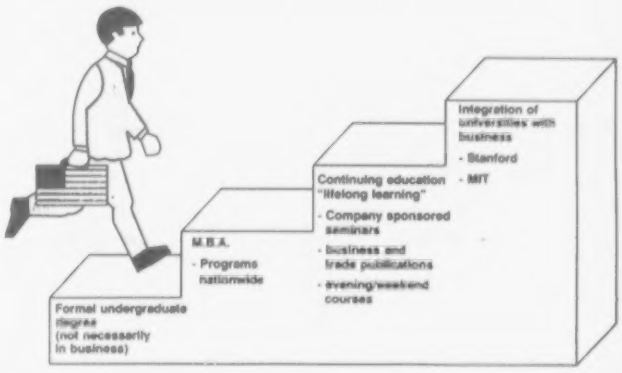
It is not surprising that in such a technology- and engineering-driven economy, the major Achilles heel of German industry is a preoccupation with products rather than customers. All too often, German products are engineered to a precision and quality far beyond the needs of its buyers. The product becomes a value in its own right; the customer must be educated (reformed) to appreciate it. The Germans are in danger of forgetting that a value-based strategy must produce enough extra quality and service *to the customer* that he is willing to pay the price premium; this added value must not only be present, it must be perceived and appreciated by the customer and serve to fill his particular needs.

3. *Professional education*

One of America's most successful exports is hardly reflected in trade figures: its truly excellent post-graduate management education system. The tradition goes back to the Wharton School in the 1880s and has achieved world renown. Each year the nation's MBA programs produce thousands of foreign graduates (including many Germans) who return to enrich their own business culture with newly-acquired business skills.

Perhaps even more important is the American tradition of lifelong learning. A 1982 study by the *Oxford Review of Education* showed the American higher education participation rate (the proportion of 18-year-olds who proceed to higher education) to be nearly 42 percent—the highest in the world. The German ratio is, by contrast, now around 30 percent, after having been seven to eight percent some 15 years ago. Similarly, American managers place a high premium on continuing education and training throughout their professional lives as well as regular reading of at least several of a dozen or so nationally recognized management journals. This continuing education is facilitated by the high degree of integration with businesses that American academia has achieved, spurred by successful experiments at Stanford and MIT especially.

A TRADITION OF LIFELONG LEARNING



West Germany, despite its enormous economic importance as a major industrialized nation, has no internationally recognized business school. Rather, it sends its promising young managers to France (INSEAD), to the U.K. (London School of Economics), to Switzerland (St. Gallen) or to the United States. While German universities do provide business students with a sound theoretical framework for their future career, the academic community still remains largely in the ivory tower of *Wissenschaft*, anchored by a strong emphasis on research. The chasm to industry, although narrower than in the past, remains significant. A German manager, once he has established his academic credentials in his twenties, still has far too little occasion to continue learning or to draw on the considerable resources of the universities.

West Germany: Fundamentals of Success

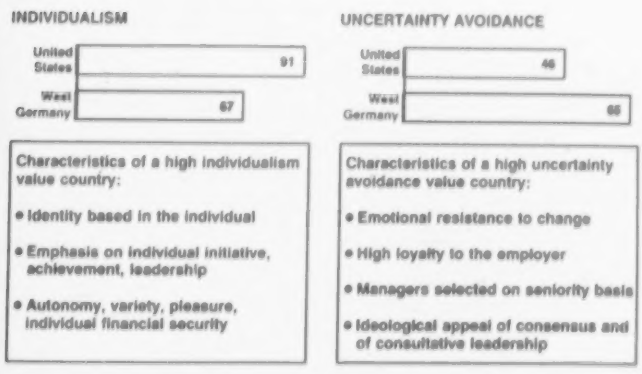
The businessman from Reutlingen is successful as well. The roots of his success, however, are very different from those of his counterpart in Cincinnati. Nevertheless, his achievement—and generally remarkable results in world markets—can also be traced to some fundamental management strengths. The most salient of these are:

- *Long-term perspective*—a clearly-defined long-term strategy complemented by consensus-oriented decision making
- *"On-the-job" trained managers*—a much-envied job apprenticeship program which produces senior managers well-versed in the basics
- *International focus*—a keen awareness of world markets even in small and medium-sized companies

1. *Long-term perspective*

Germany as a nation evidences a higher premium on stability and a far longer time-span focus than does the U.S. Such basic macroeconomic indicators as the national savings rate (11 to 13 percent in Germany, as against 5 to 7 percent in the U.S.) and the high level of R&D spending by corporations (greater than 2 percent of GNP) underline this. From a more sociological perspective, Hofstede's 1980 research on *International Differences in Work-Related Values* showed German white-collar workers overwhelmingly rejecting the value *individualism* and favoring the value *uncertainty avoidance*. Specifically, loyalty to the employer, seniority and consensus were valued highly. In the United States, the results showed a mirror image: American workers placed a premium on individual initiative, autonomy, and variety, and valued security only on an individual basis.

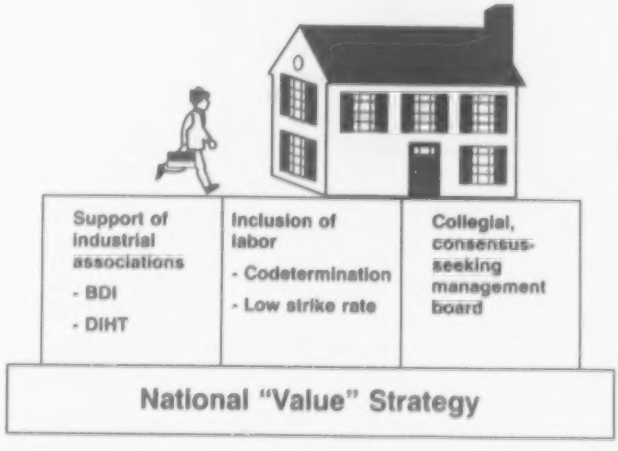
COUNTRY-SPECIFIC WORK VALUE INDEXES BY PERCENTAGE


INDIVIDUALISM
United States
91
West Germany
67
Characteristics of a high individualism value country:
• Identity based in the individual
• Emphasis on individual initiative, achievement, leadership
• Autonomy, variety, pleasure, individual financial security
UNCERTAINTY AVOIDANCE
United States
46
West Germany
65
Characteristics of a high uncertainty avoidance value country:
• Emotional resistance to change
• High loyalty to the employer
• Managers selected on seniority basis
• Ideological appeal of consensus and of consultative leadership

This cultural phenomenon must be seen in the context of Germany's basic economic position as a high-wage country with—until 1992—a small home market. These factors together have led to a remarkably homogenous and clear-cut national business strategy: competitive advantage based on value rather than cost, i.e., premium quality and dependability which ought to justify a price premium.

German managers collectively start with this clearly defined value statement and proceed to implement it through long-term strategy. Implementation is facilitated by the remarkable degree of consensus which is generated by a number of structural factors. These include family ownership of a major portion of industry, representation of labor on the supervisory board (codetermination) and the rejection of an autocratic CEO in favor of a *primus-inter-pares* speaker of the management board who must persuade his colleagues to reach a joint decision. The value strategy is further bolstered by the tremendous support offered by Germany's industrial associations (BDI and DIHT), which seek to provide a common voice for German industry *vis-a-vis* government and foreign markets. The result of all this is a slower, more cautious approach, and business meetings that on the average last far longer than those in the U.S.—but also a balanced, long-term perspective which is supported by labor, management and government.

STABILITY THROUGH CONSENSUS



American management is rooted in a far different cultural tradition, in a society which places a premium on progress and demonstrable success (results). As a logical consequence, the time-span focus of management is significantly shorter than in Germany. Specifically, American management's penchant for the short-term is due to a number of clearly discernible factors, including:

1. Heavy dependence on equity financing with the need to constantly monitor stock prices to placate shareholders and, ultimately, prevent takeover bids;
2. Success ratios largely drawn from accounting (return on investment, etc.) rather than broader,

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more qualitative measures which require a longer time-span before they become evident;
3. High mobility of the work force with average tenure in any managerial job usually two to three years and pressure to show results within that period; and
4. CEOs who are often hired into a company in their late 50s, with only a few years' time to make a difference before retirement.

...the tremendous support offered by Germany's industrial associations (BDI and DIHT), which seek to provide a common voice for German industry vis-a-vis government and foreign markets.

On balance, the U.S. approach can be harmful, if necessary long-term capital investments are shelved in order to maximize short-term profits (Detroit in the Sixties) and if stock price manipulation becomes more important than providing value to the customer (a major portion of corporate activity in the Eighties). Indeed, the Germans' careful, farsighted approach has allowed them to reap considerable competitive advantages: prime examples are Nixdorf's development of ISDN compatibility as early as 1979 and the country's absolute lock on the high end of the machine tools industry. Even the ponderousness much decried by Americans can be an advantage: where would Daimler-Benz be today had its ambitious diversification program into heavy agricultural and earth-moving equipment (Euclid) of the early Seventies been mounted with American action-oriented vigor?

2. *"On-the-job" trained managers*

While West Germany may lag behind the U.S. in professional management education of the elite, it remains unequalled in the building of skills among the broad working-class population. One of West Germany's most valuable competitive assets is the widely envied national apprenticeship program. Here again, the consensus of the society is evident as government and industry share the burden of funding as well as the benefit of a low youth unemployment rate and a constant supply of new skilled labor.

Somewhat less evident is another advantage of Germany's *Lehrling* (Apprenticeship) program: it produces an inordinately high percentage (nearly 60 percent) of truly seasoned managers well-versed in the basics of manufacturing and marketing because they have worked their way up from the shop floor. Especially in medium-sized companies (the backbone of the German economy), chief executive officers often look back on a career which started with their entrance to the company at age 16 as a *Lehrling* and progressed through a variety of *hands-on* positions before finally reaching the top.

By contrast, critics of American management point to the phenomenon of know-it-all 25-year-old Ivy League MBAs who enter companies at high levels and eventually rise to the top management positions without ever setting foot in a factory or dirtying their hands with the actual making of the product. Indeed it is true that American managers tend to come more from the law, finance and accounting disciplines and less from the manufacturing

There is no direct German parallel to the American concept of a "professional" manager...

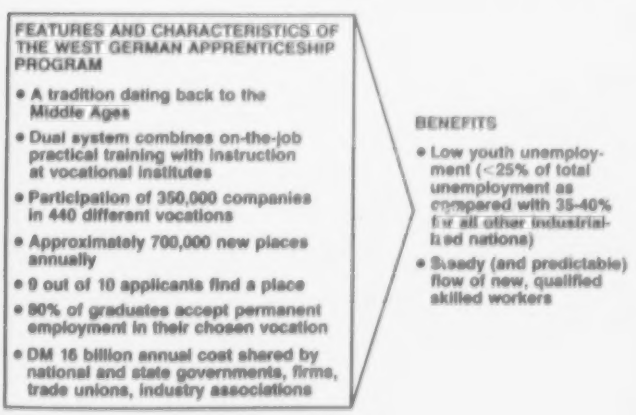
and engineering sectors. There is no direct German parallel to the American concept of a *professional* manager—in Germany a manager first earns his credentials as an engineer, scientist or economist and only then moves into a managerial position.

A poignant example of this weakness in American management is the account recently cited in the *Wall Street Journal* of Sherex Chemical Co. in Dublin, Ohio. The company was sold by Ashland Oil to Germany's Schering AG in the 1970s. "When Ashland executives visited Sherex, they only wanted to see the financial statements. Factory tours bored them. We kept having to explain what our chemicals were used for," said Charles Aldag, Sherex president.

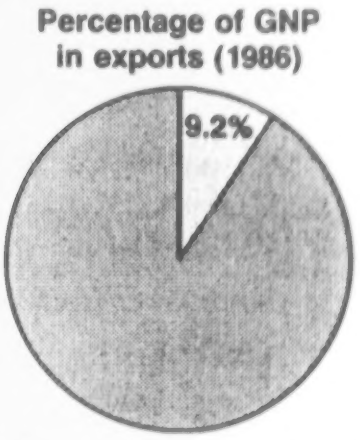
3. *International focus*

West Germany is the world's largest single trading nation, with over 30 percent of its GNP in exports. Although European integration by the end of 1992, *or* 1993 will dramatically change the parameters, Germany's home market of 60 million people has until now been one-half the size of Japan and one-quarter the size of the U.S. This was the natural breeding-ground for a national strategy which looked at global markets. Even small- and medium-sized companies have been forced to develop export sales in order to survive.

A NATIONAL ON-THE JOB TRAINING PROGRAM

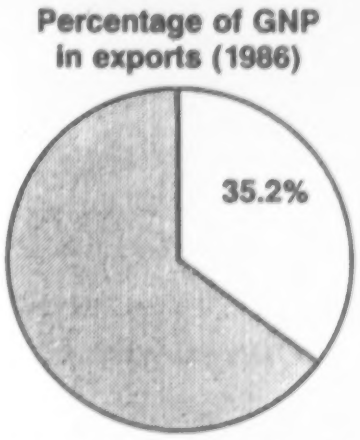

FEATURES AND CHARACTERISTICS OF THE WEST GERMAN APPRENTICESHIP PROGRAM
• A tradition dating back to the Middle Ages
• Dual system combines on-the-job practical training with instruction at vocational institutes
• Participation of 350,000 companies in 440 different vocations
• Approximately 700,000 new places annually
• 9 out of 10 applicants find a place
• 90% of graduates accept permanent employment in their chosen vocation
• DM 16 billion annual cost shared by national and state governments, firms, trade unions, industry associations
BENEFITS
• Low youth unemployment (<25% of total unemployment as compared with 35-40% for all other industrialized nations)
• Steady (and predictable) flow of new, qualified skilled workers

UNITED STATES



- **90% of companies do not export at all**
- **Exports are basically an exception to the rule (license requirement)**
- **37% of population regards foreign trade as harmful to the economy (CBS poll January 1987)**

WEST GERMANY



- **World's largest single trading nation**
- **Strong subsidiary network even with medium-sized companies**
- **Virtually no import barriers**

The international focus of German industry is truly impressive. Although banks were slow to build international networks and the insurance industry (due to legal constraints) is still largely domestic, virtually every other sector of the economy has for decades been intimately

...only a handful of Fortune 500 CEOs have even a working knowledge of a foreign language, many managers do not even carry a passport,...

familiar with the ins and outs off foreign markets. Even the small machine tools manufacturer from the rural hinterlands of Swabia is certain to have a professional export manager and sales (if not manufacturing) subsidiaries in six or seven countries. Owners and managers of such companies can usually discuss developments and success factors in all the important international markets comfortably in English.

This situation must be contrasted with that of the United States, where 90 percent of companies do not export at all, only a handful of Fortune 500 CEOs have even a working knowledge of a foreign language, many managers do not even carry a passport, and the government requires the issuing of licenses to export (revealing the basic philosophy that exports are the exception, not the rule). As the era of global management approaches and the advantages of the huge U.S. home market recede, American managers have much to learn from the Germans about achieving success on an international basis.

Conclusion: Implications for the Future

The Cincinnati and the Reutlingen managers are finding ever more occasion to interact with one another. One of the clearest patterns to emerge in world business in the past years is the continuing globalization of industry. It is no longer enough to do well within the confines of one's own national arena. From the auto to the electronics to the financial services industries, only those companies which can effectively compete on a truly global basis (especially within the *triad* of the United States, Japan

This globalization process requires management skills which reach beyond national boundaries.

and Western Europe) will be successful in the long-term.

This globalization process requires management skills which reach beyond national boundaries. It is here that German and American managers can offer lessons to one another. The successful enterprise of the 1990s requires managers who can build on inherent strengths while at the same time learning from and assimilating the best of

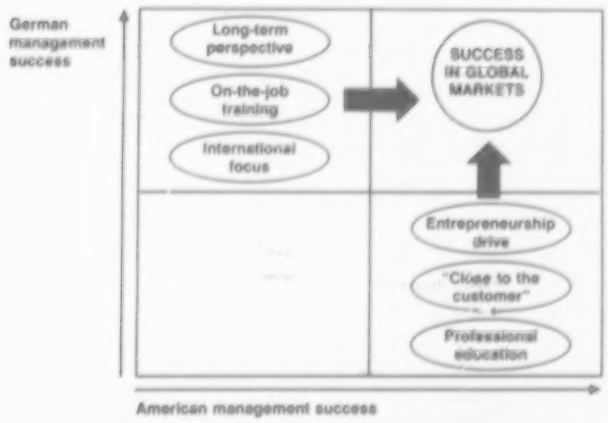
powerhouse ◆ success

dynamism ◆ potential

internationality ◆ market access

roots ◆ confidence

GLOBAL SUCCESS THROUGH SYNERGY



the strengths of others. Specifically, it is necessary to:

1. Maintain a stable, long-term strategic perspective (as in Germany) while at the same time generating the American entrepreneurship, innovation and dynamism to respond quickly and effectively to changing environmental factors;
2. Develop a work force on the German model, which is built from the shop floor up, well-rooted in the practical skills of manufacturing and selling products and services, but also in command of the skills of professional management and working constantly to further educate and train itself to maintain state-of-the-art knowledge, following the American example;
3. Always remember, as do many excellent American companies, that the customer is king and develop goods and services specifically geared to customer needs; at the same time realizing, as do the Germans, that the customer base is global and international markets require an international approach to be served effectively.

German and American managers have much to learn from one another. The ever stronger links of bilateral trade and investment can only serve to facilitate this cross-semination of knowledge and to produce the synergies which are necessary if companies in both countries are to succeed in the long term. The challenges of the global marketplace demand that we expand our focus and stand willing to learn from, as well as to teach, our business partners to jointly develop a relationship which serves both our interests. In the process, German and American managers can help each other to progress much farther than each could on its own. And in doing so they can further strengthen the basic foundation of the German-American partnership. □

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Ueberblick

Deutsches und amerikanisches Management—Gemeinsamkeiten, Unterschiede und Probleme

Nichts hat die Weltwirtschaft in den letzten Jahren so sehr gepraegt wie die fortschreitende Internationalisierung und Globalisierung der Industrie, sei es im Automobil-, Elektronik- oder Finanzdienstleistungssektor. Nur Unternehmen, die weltweit wettbewerbsfaehig sind (insbesondere im "magischen Dreieck" USA, Japan und Westeuropa), werden langfristig erfolgreich sein.

Diese Globalisierung von Unternehmen ist nicht denkbar ohne ein international orientiertes Mangement. Hier koennen deutsche und amerikanische Manager von den Staerken des anderen lernen. Waehrend der Erfolg deutschen Managements in einer langfristig angelegten Unternehmensstrategie, der Differenzierung von Marketingstrategien auf internationalen Maerkten und einer umfassenden theoretischen und praktischen Berufsausbildung beruht, zeichnet sich erfolgreiches Management in den USA durch innovationsfreudiges, dynamisches und flexibles Unternehmertum, vorbildliche Kundennaehe und kontinuierliche Fort- und Weiterbildung im Beruf aus. Eine Verflechtung dieser beiden Konzepte bringt die noetigen Synergieeffekte mit sich, damit Unternehmen in beiden Laedern langfristig mit Erfolg auf dem Weltmarkt agieren koennen.

Die durch den wachsenden bilateralen Handel und zunehmende Investitionstaetigkeit immer staerker werdenden Bindungen zwischen der Bundesrepublik Deutschland und den Vereinigten Staaten koennen den Austausch von Erfahrungen und Wissen auf Managementebene nur erleichtern. Deutsche und amerikanische Manager koennen so voneinander lernen und gemeinsam zum Erfolg ihrer Geschaeftspartner beitragen. Und dies staerkt nicht zuletzt die Grundfeste der deutsch-amerikanischen Partnerschaft. □

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EG 1992—Strategische Implikationen fuer die amerikanische Geschaeftswelt

EC 1992: Strategic Implications for American Business

KPMG Peat Marwick

Introduction

The emerging unified market in Europe, scheduled for completion by December 31, 1992, is expected to reshape global economics. By that time, borders between the 12 member countries of the European Community (EC) will dissolve, and fragmented markets will disappear.

The approval of about 300 directives will affect everything from product standards to the monetary system. Methods of doing business in the EC will change drastically. Prices of goods will fall, and competitiveness on an EC-wide scale will be the order of the day. Domestic (EC) and global entities must plan for these changes.

To gain further insight into the effects of 1992 on American business, Peat Marwick conducted a nationwide random sample survey of four industries often associated with the changing climate of 1992: high technology, manufacturing, transportation, and merchandising.

Conducted with support from Elrick and Lavidge, Inc., a national marketing research firm, the survey's goal was to generate a comprehensive body of knowledge on how American businesses are responding, their perceptions of possible opportunities and challenges, and the strategies to be employed to meet those challenges.

The survey, which was carried out in the spring of 1989, targeted chief executive officers, chief operating officers, and other senior executives involved in the international operations of their companies. It measured these top decision makers' competitive assessments of their companies' positions and business strategies for dealing with 1992.

Companies that plan to participate in the European single market have already taken their first steps to prepare for the event. We believe this report will contribute to a greater awareness of the importance of the European single market and will assist in the specific planning and implementation processes in which the readers are involved.

Larry D. Horner
Chairman, KPMG Peat Marwick

About the Survey Participants

A total of 993 executives responded to the mail survey, of which 872 usable replies were analyzed.

The majority of respondents (60 percent) are chief executive officers. The remainder are senior executives involved in the international operations of their companies, such as chief operating, international, or financial officers.

More than eight in ten (85 percent) play a significant role in the 1992 decision-making process for their companies. To a great extent, company decisions regarding 1992 are made by an informal working group (47 percent); few companies rely on a formal committee (12 percent) or one key individual (15 percent).

Two-thirds of the respondents represent companies in the high-technology (34 percent) and manufacturing (33 percent) industries. Thirty percent are executives in the transportation (15 percent) and merchandising (14 percent) industries. Respondents are almost equally divided between mid-size companies (gross revenues of $10 million-$100 million) and larger companies ($100 million or more).

U.S. Executives' Awareness of 1992

Although the majority of U.S. business executives surveyed acknowledge the importance of the creation of a single European market, their opinions vary regarding its relevance to American business in general and to their industries. Companies already involved in the EC (two-thirds of the sample) are most likely to see a significant impact on their own companies (56 percent).

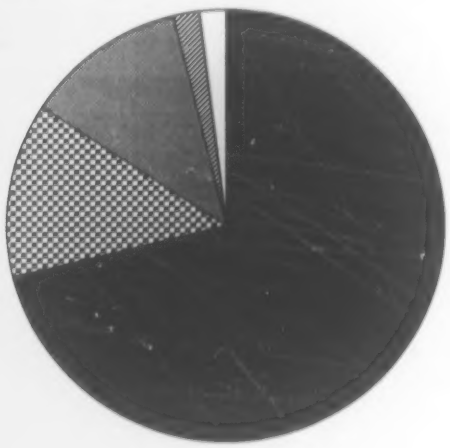
In the high technology sector, executives believe 1992 is important to U.S. business in general (62 percent) and to their own companies (57 percent). Half the manufacturing executives think the pending single EC market has general importance for other U.S. companies, but only 42 percent foresee a significant impact on their own companies.

Likewise, merchandising and transportation executives recognize the general importance of 1992 for the United States (62 percent and 64 percent, respectively), but relatively few (25 percent and 30 percent) believe a single EC market will affect their own companies.

Almost 85 percent of the respondents claim general to detailed knowledge of 1992 issues and complexities, but are less confident about their peers. "American companies and the public are not well aware of the implications and meaning of EC 92," said one executive. Another responded, "U.S. businessmen and women don't understand the magnitude of the change!"

Levels of executives' personal knowledge correspond to their companies' involvement with the issue. Those who regard 1992 as significant to their companies are

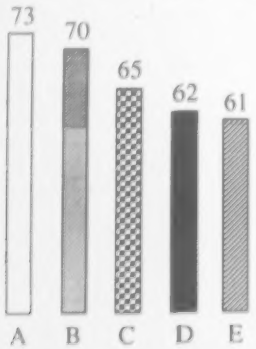
three times more likely to have detailed knowledge than those who believe 1992 is insignificant. Similarly, those making plans for 1992 are almost four times as likely to have detailed knowledge as those considering or discarding the issue.



General Knowledge	71%
Detailed Knowledge	13%
Recognize the Term	12%
Know Nothing	2%
Not Specified	2%

Respondents currently involved in EC operations are the most knowledgeable, followed by those who plan to do business in the EC. Generally, leaders of high technology companies tend to be the best informed. The most knowledgeable executives learned about 1992 primarily through personal experience—either from Europe-based colleagues (75 percent) or from travel in EC countries (67 percent). Respondents cited business associates as their number one source of strategic assistance.

Almost 60 percent of executives surveyed doubt the EC countries will achieve all their goals by the target date of December 31, 1992. Instead they envision implementation of the single market by the mid-1990s. The level of executives' involvement in 1992 planning correlates with their level of confidence about when full implementation will be in place.



A Business Associates
B Industry Trade Associates
C Accounting/Consulting Firms
D Companies' European Management
E Companies' U.S. Management

Executives who view 1992 primarily as an economic issue are more likely to expect that the target date will be met. Those who believe cultural ramifications are important assert that national sovereignty concerns will delay EC 1992 for a few years.

As one respondent noted, "We doubt much of the economic change will occur by 1992. However, all the European countries realize the importance of the idea. We believe it may take 15-20 years to accomplish a united Europe, but we will have our planning done much sooner."

Perceived Effects of 1992

The survey noted a sharp difference in perception between impacts in Europe and the United States.

Europe

An overwhelming number of respondents agree that 1992 is important to Europeans and that European businesses are taking preparatory actions. Almost three-quarters of the respondents believe Europeans think the target date will be met on time or within a few years.

As a result, it is not surprising that 86 percent of the respondents view the EC member states as the primary beneficiaries of a single market and that 60 percent anticipate a positive impact on their own industries in the EC.

"1992 offers great opportunities for EC economies and companies doing business in the EC. Let's hope the politicians don't foul it up," said one respondent.

The EC operations of U.S. companies should derive most of the benefits that stem from a single market. Nearly all respondents foresee stronger European businesses, but are split in their views regarding the effect of 1992 on world economic power relations.

Almost 80 percent surveyed agree 1992 will be a self-fulfilling prophecy as businesses in the EC position for it. A closer look revealed insight into the possible effects on U.S. companies that do business in the EC. Respondents rated the likelihood of certain changes in the 1992 business climate. Some would create a more level playing field for all companies, including U.S. companies; others would create barriers for non-EC companies to overcome.

Some business changes and their response rates are as follows:

Impacts of 1992 on U.S. Companies Doing Business in the EC	All Respondents (%)
Increased enforcement of EC fair competition law	70
Quicker movement of new products into the marketplace	64
More effective deployment of human resources	57
Freer competition in public procurement	53
Elimination of taxation differences within the EC	50
More competitive interest rates	40
An increase in the influence of trade unions	24
Reduction in protection for patents or intellectual property rights	20

United States

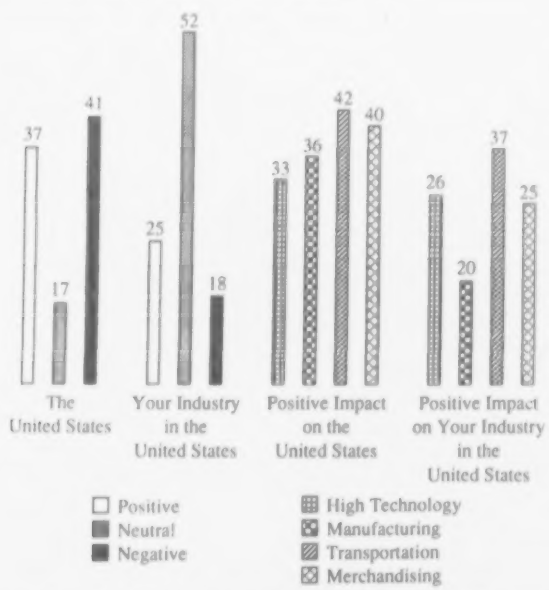
Opinion is also divided regarding the impact of 1992 on the United States. One third of the executives surveyed expect 1992 to have a positive economic impact on the United States; 41 percent foresee a negative impact. One-half think there will be no impact either way on their own industry in the United States, and only one-quarter predict a positive effect on their industry.

The American executives surveyed believe 1992 is clearly a European issue; they state that current EC member states are more than twice as likely to reap the benefits of a single market than the U.S. economy.

Although 61 percent generally see a positive impact on the world economy, most executives think Japan and the European Free Trade Association countries (Finland, Sweden, Norway, Iceland, Switzerland, and Austria) have the most to lose.

One respondent offered a broad perspective on the changes anticipated to result from 1992. "The new EC will create a more efficient market condition. In turn, we'll require providers to search for greater levels of efficiency. In the end the consumer will receive better products and services at lower cost. Unfortunately, companies that do not cut costs and focus on quality will not be able to compete in EC countries."

Potential pitfalls are seen in the 1992 program. Eight in ten executives believe U.S. companies will be pressured to establish a European identity to qualify for possible advantages. Three quarters of the respondents also envision possible cost advantages to EC companies. This underscores the choice of joint venturing and strategic partnering arrangements as preferred business strategies for participating in the single market.

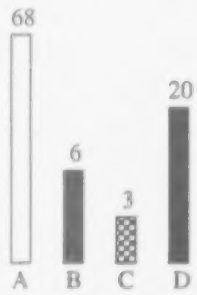


Fear of exclusion is apparent as two thirds of the executives forecast the EC will create significant trade barriers for non-EC countries—at least in the beginning or until they catch up internationally. The same number believe it will become increasingly difficult to establish operations in the EC after 1992.

One manufacturer said that if quotas and border easements create more favorable conditions for EC businesses, it would be naive to think that "the European group will opt to make it easier or cheaper for us. They'll have the power in their hands. They'll have the bat, the ball, and the ball field."

Current Involvement in the EC

Two of three (68 percent) companies are currently doing business in the EC. Another one of ten (9 percent) say they plan to become involved in the EC either prior to or after 1992. Major markets for the 591 companies currently involved in the EC are the four most populous EC countries: the United Kingdom, Germany, France, and Italy. The Netherlands, Spain, and Belgium are moderately large markets.



A Currently Do Business in EC
B Plan to Do Business in EC Prior to 1992
C Plan to Do Business in EC After 1992
D Do Not Plan to Do Business in EC

U.S. companies have already located the bulk of their European facilities, which consist mainly of distribution rather than manufacturing, in these seven countries. Respondents from manufacturing and high technology companies are almost twice as likely as merchandising and transportation executives to say their companies are currently in the EC; 86 percent of high technology companies and 74 percent of manufacturers currently do business in one or more EC member states, compared with 47 percent of transportation companies and 41 percent of merchandisers.

Despite the number of companies currently located in or selling to the EC, few are deeply involved. Nearly half those companies state that 1988 revenues from EC operations represented less than 10 percent of their gross revenues. Overall, revenues from EC operations represented an average of 17.3 percent of 1988 gross revenues.

Competitiveness Issues and Company Approaches to EC Planning

Significance of 1992

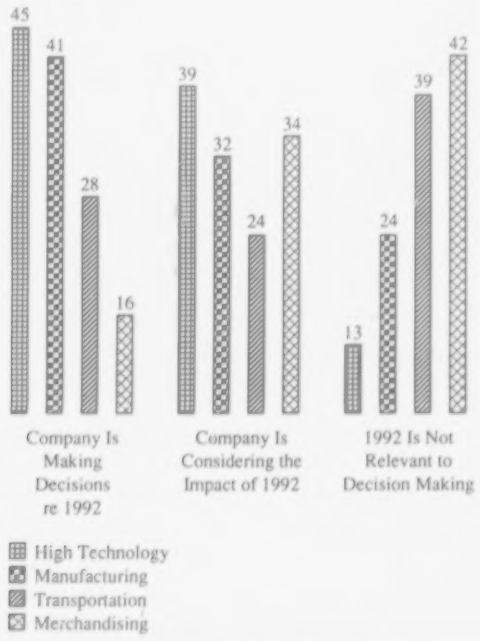
Overall, less than half (42 percent) of executives who responded consider the implications of 1992 significant to their companies. However, those most likely to consider the event significant are those who are best informed (71 percent), actively planning for the single market (72 percent), or currently doing business in the EC (56 percent).

Fifty-seven percent of high technology companies and 48 percent of large companies recognize 1992 as significant to their companies. A high technology executive explained, "We want to do business in Europe. We might as well get there as soon as possible because 1992 is coming, and the sooner we establish a presence, the better off we'll be."

Smaller percentages of manufacturers (42 percent), transportation executives (30 percent), and merchandisers (25 percent) view the event as significant to their companies.

Status of Company Planning

Close to four in ten (37 percent) of the respondents are formulating strategies to take advantage of anticipated opportunities. One third are contemplating action and reviewing their options, and one quarter have not yet formulated an EC-related strategy and appear to have no agenda to do so.



Companies already in the EC are the most involved. Half are actively planning to solidify their positions, and approximately four in ten are considering the impact of 1992 on their companies.

Action Triggers

The survey identified circumstances that could motivate companies to actively plan for 1992 challenges. A company's 1992 decision-making process and status determine the most relevant responses. It is not surprising that the one-third of all the companies considering strategic action at this point are also the most susceptible to these circumstances or triggers.

Among this group, the most common triggers are when and if their companies' competitive positions (48 percent) or market shares (39 percent) begin to suffer or when EC standards and regulations (47 percent) negatively affect their products. They replied they would also be "called to action" if EC companies were to become a more competitive force in the United States.

Currently, only 37 percent of all the executives surveyed believe their competition is preparing for the single EC market. Two groups are most sensitive to such competition: high technology companies (46 percent)—particularly large high technology companies (53 percent)—and those actively formulating plans for 1992 (58 percent). Manufacturers (36 percent), transportation companies (33 percent), and merchandisers (21 percent) do not profess as great a sense of competitors' preparations and readiness for 1992.

Business Strategies and Expectations

The business executives surveyed recognized the goal of 1992 is to create an EC-wide marketing arena with an emphasis on increasing European growth through competition and greater efficiency.

To participate in this new arena, the majority of respondents foresee that:

- Strategic alliances between U.S. and EC companies will be necessary (87 percent).
- U.S. companies will need to increase on-site manufacturing in Europe (81 percent).
- Pan-European strategies will be necessary to succeed in the single market (79 percent).

One executive noted, "U.S. representation in Europe by Europeans for marketing and sales—followed by acquisitions, joint ventures, or a teaming with European companies—is a must for success in Europe."

Less than four in ten (37 percent) of all respondents are actively developing strategies to take advantage of opportunities inherent in a single EC market, including 45 percent of the high technology sector.

Of the group that is developing their strategies, 88 percent cite a commitment to achieve major growth in the EC, and 58 percent note the threat of their competition's preparations. In addition, almost 80 percent believe their companies will benefit from 1992 upon implementation of their strategic plans. Again the companies most highly motivated to achieve growth in the EC are generally already doing business there.

High technology companies (72 percent) of all sizes demonstrate the greatest desire for growth in the EC. The larger high technology companies view themselves as better prepared to move ahead compared with mid-size companies (39 percent versus 21 percent). One respondent said, "The opportunities that the 1992 movement will create for the information technology industry are tremendous since it will change the rules of the game in many industries such as finance, retail, transportation, government procurement, and others."

At present, marketing and distribution signify key approaches to moving ahead in Europe. The possibility of marketing products more widely (58 percent) is critical, although changing distribution channels (45 percent) and export arrangements to the EC (35 percent) are also considered fairly important.

Over half the respondents (56 percent) consider joint ventures and strategic partnering ventures to be important

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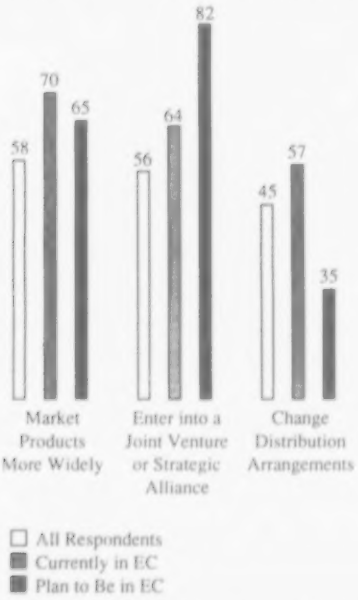
possible strategies. One-third say they think it will be important to merge with or acquire an EC manufacturer. Several executives view merger options as trigger points for 1992-related action and will move "when we find an appropriate partner," "when our negotiations mature" or "if market and joint venture opportunities present themselves."

Respondents also noted strategic options based on altering the structure of current European operations. With regard to consolidation efforts, the centralization of decision making in Europe (34 percent) is viewed as



potentially more fruitful than the consolidation of existing, currently separate EC operations (23 percent).

One executive explained some considerations in resolving nationality and consolidation issues. "In the past we were tempted to have a presence in almost all major European countries for reasons of tax, culture, trade, and distribution, among others. Some of those reasons are now falling by the wayside. We'll do better with just one or two centers—one for production and one for distribution. You want to be in a location that is somewhat accepted or somewhat neutral. You don't want to inflame national prejudices by locating yourself in an unacceptable area."

Primarily, high technology companies and manufacturers are pursuing strategies to increase production capacity or to effect product changes and developments. However, high technology companies are more likely than manufacturers to seek strategies that involve joint ventures (69 percent versus 53 percent), increase the European content of products (59 percent versus 31 percent), and step up research and development (R&D) efforts (50 percent versus 28 percent).

With regard to time frames for action, a significant percentage of U.S. executives is unable to pinpoint exactly when they plan to implement their various strategies. The remaining executives envision putting their plans into place soon—between 1990 and 1992. Efforts required to centralize decision making in Europe, plan broader marketing strategies, and increase Europe-based R&D are more likely to be initiated now.

Business Risk

For 40 percent of all companies regardless of size, EC-related activities and planning present the same degree of risk as any other business activity. Only one-quarter (27 percent) consider the business risk of tackling the single EC market to be higher than usual.

Those who assess 1992 strategies as high risk are more likely to consider the following three strategies important to their companies' plans:

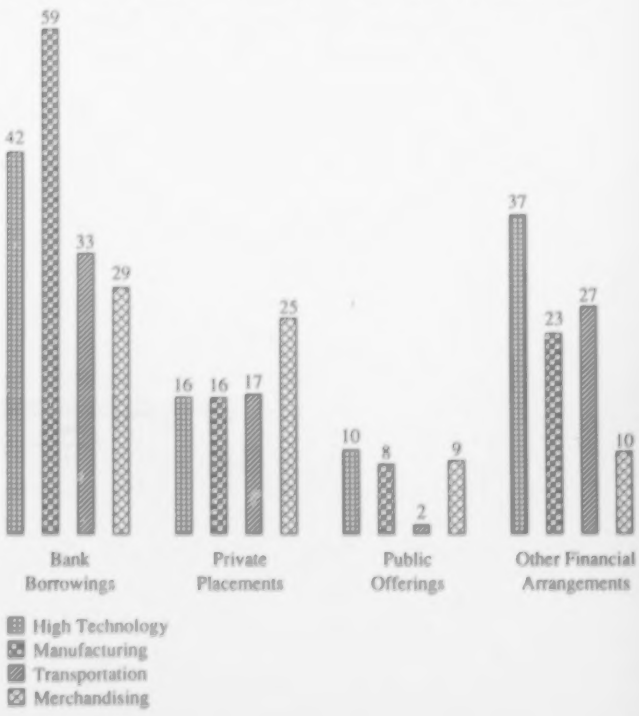
- Mergers and acquisitions
- Significant product changes
- Additional EC production facilities

Financing and Investments

U.S. business is planning both major and minor investments in several of the EC countries. Respondents revealed plans to invest most heavily in the United Kingdom, Germany, and France, which represent major markets for over 40 percent of the companies surveyed. Italy, Spain, the Netherlands, and Belgium were mentioned primarily for minor investments. Little or no investment is planned in the remaining five EC countries. More than six in ten companies have decided not to invest in most of these smaller countries.

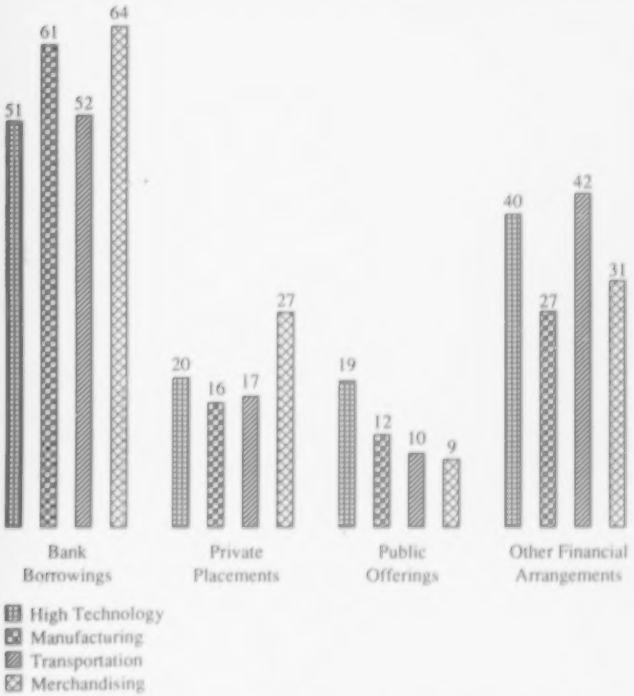
High technology companies plan to focus their major investments in the United Kingdom and Germany, while manufacturers identify only the United Kingdom as their first choice.

Two thirds of the executives believe 1992 will not affect their ability to obtain financing. Large manufactur-



ing and high technology companies as well as companies already established in the EC envision little difficulty in obtaining financing.

About half the surveyed companies in high technology



(52 percent), manufacturing (51 percent), and merchandising (48 percent) and one-third of those in transportation (36 percent) will need external financing to underwrite their EC-related activities. Manufacturers anticipate a need for financing in the United States and in the EC; merchandising will require primarily U.S. financing. The need for financing is unrelated to company size.

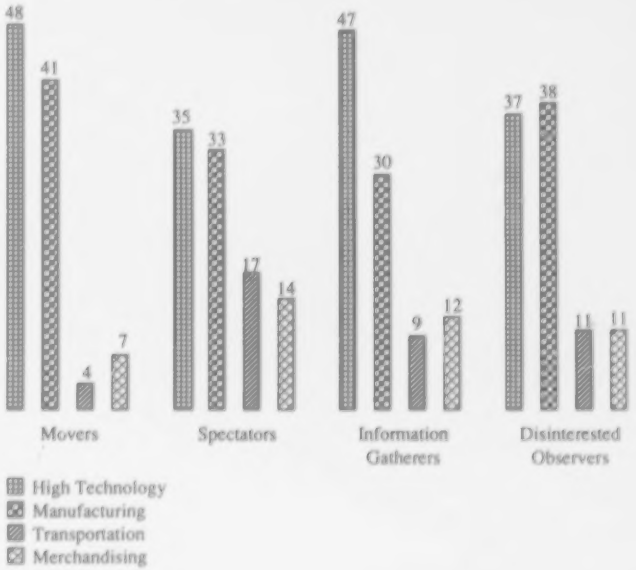
Companies that need additional financing to implement their European expansion plans are most likely to rely on borrowing from banks and least likely to apply to the open market both in the United States and Europe.

A respondent noted, "You're going to work with your traditional financing sources. They're going to be the ones to get the information to you. All the American bankers are international now."

Another respondent believes European venture capital—especially for joint venture arrangements—represents his company's best option. "There's a lot of European money over there right now. You have situations where companies have money but can't find an operation to get into the big time; maybe this is a vehicle for them to do it with. You are seeing more consortiums for generating venture capital funds now than you have historically."

Planning Profiles

Further analysis of the survey data allows grouping of the respondents according to interrelationships among their behavioral patterns, attitudes, and demographic backgrounds. This method discloses information on U.S. companies' levels of concern and their planning regarding 1992. It also gives shape and content to the trends already discussed and shows their distribution among the industry and company groupings. These groups are categorized as Movers, Information Gatherers, Spectators, and Disinterested Observers.



Movers

The Movers, mostly large multinationals in high technology and manufacturing, are the only group that is actively charging ahead with plans for 1992. Virtually all of them are well established in the EC; more than 40 percent derive at least a quarter of their revenues from European operations.

As the Movers possess more production capability than the other groups do, three of their top four strategies for 1992 are related to structure: increasing centralization of decision making in Europe, expanding production capacity, and consolidating existing EC operations.

Movers consider their companies well positioned to achieve desired major growth within the EC. Probably because of their international perspective, they believe 1992 will make EC companies stronger within the EC and the United States.

The group's concentration in manufacturing and high technology leads them to seek input into the development of the EC's technical standards.

Information Gatherers

The Information Gatherers generally consist of smaller companies, with high technology companies accounting for half the membership. Although three-quarters currently do business in the EC and an equal amount want major growth in the EC, few believe they are well positioned for 1992. The group as a whole is gathering information from all sources, but only half are actively making decisions.

In their strategic preparations for the single market, Information Gatherers will pursue efforts to market prod-

ucts more widely and to change distribution arrangements. Joint ventures or other strategic partnering arrangements with EC-based companies were cited as Pan-European tactics.

Changes in the development of new EC technical standards are important to this group due to the large number of high technology companies represented. Information Gatherers want to share in the potential benefits of 1992, but are apprehensive about competing with the multinationals and European companies.

Spectators

Spectators represent the greatest diversity in industry representation and company size. Merchandising and transportation companies comprise almost a third of the membership, more than any other group. They are equally divided among large and mid-size companies. This diversity leads to various opinions on many issues. Almost six of ten Spectators think 1992 is significant, but only half predict benefits for their companies or are actively making plans.

Over three-quarters of this group believe that it will be harder to get into the EC after 1992 and that the EC may create significant trade barriers for non-EC companies. To prepare for these possibilities, Spectators cite joint ventures or mergers and acquisitions as key strategies to establish European identities and position their companies.

Disinterested Observers

Whether uninformed or merely apathetic, Disinterested Observers indicate little concern about 1992 and expect minimal impact on their companies. Almost 20 percent of this group indicate they know nothing about 1992—a large number compared with just 1 percent of Movers. One-quarter report 1992 is insignificant to their companies, and almost as many are not planning to do any business in the EC.

Only half the Disinterested Observers believe 1992 will affect the world economy, with almost 30 percent predicting failure for the single market.

The few in this group who are planning for 1992 will seek to market their products more widely, enter into joint ventures with EC-based companies, and change their distribution arrangements.

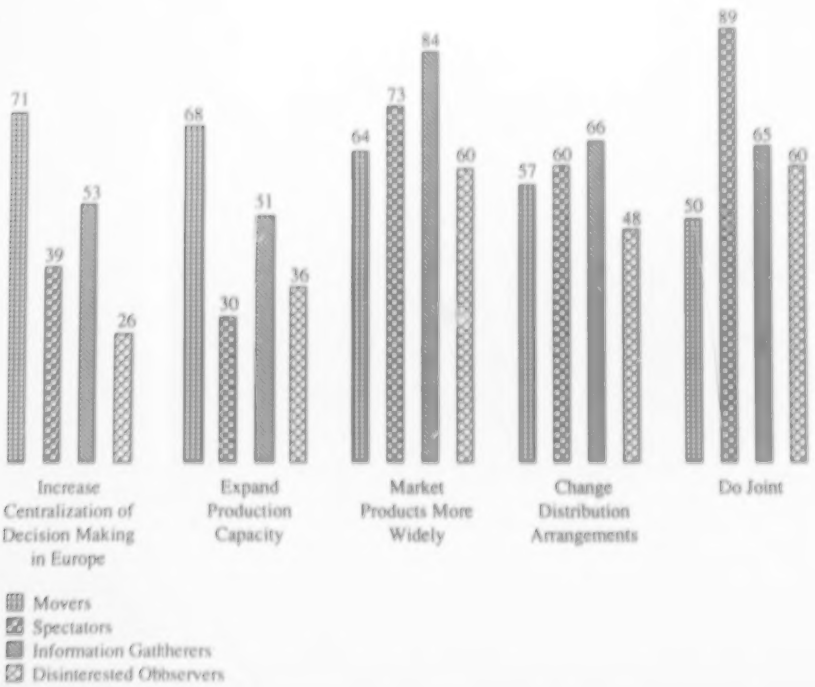
About the Research

News about 1992 pervades today's business climate. Many of the phrases and issues associated with 1992 have become catchwords for business planning that can be found throughout the media.

The Peat Marwick survey targeted four industries most likely to be involved in trade with the EC or to have affiliates/ subsidiary operations in EC countries: manufacturing, high technology, merchandising, and transportation. A sample of 10,000 chief executive officers or other senior executives randomly selected by Dun and Bradstreet within industry, functional responsibility, and company size received a survey package during the week of February 27, 1989, and a duplicate mailing two weeks later.

Of the 10,000 mailed surveys, 993 were returned; 872 were usable (9 percent). Tabulation and analysis took place in May and June of 1989.

The results of this survey, as those of any other, are subject to sampling errors. Due to the extensiveness of the study, these errors range from +/-3 percent for data based on the responses of the entire sample to +/-9 percent for responses based on selected subgroups. □



Ueberblick

EG 1992—Strategische Implikationen fuer die amerikanische Geschaeftswelt

Der sich abzeichnende einheitliche Markt in Europa, der am 31. Dezember 1992 vollendet sein soll, wird die wirtschaftliche Landschaft veraendern. An diesem Datum werden die Binnengrenzen zwischen den 12 Mitgliedstaaten der Europaeischen Gemeinschaft (EG) entfallen und die Einzelmaerkte verschwinden.

Die verabschiedeten etwa 300 EG-Richtlinien werden alles beeinflussen, von den Pruduktstandards bis hin zum Waehrungssystem. Die Methoden, in der EG Geschaefte zu taetigen, werden sich drastisch veraendern. Die Preise fuer Waren werden zurueckgehen, der Wettbewerb in EG-Dimensionen wird an der Tagesordnung sein. Die EG-interne und internationale Geschaeftswelt muss sich auf diese Veraenderungen vorbereiten.

Um die Auswirkungen von 1992 auf die amerikanische Geschaeftswelt besser ueberblicken zu koennen, hat Peat Marwick eine Untersuchung in vier Industriezweigen durchgefuehrt, die haeufig in Verbindung zu den Veraenderungen im Hinblick auf 1992 gebracht werden: Hochtechnologie, produzierendes Gewerbe, Transportwesen und Handel. Ziel dieser Untersuchung war, einen umfassenden Kenntnisstand ueber die Reaktionen der amerikanischen Unternehmen, ueber ihre Wahrnehmungsfaehigkeit von moeglichen Gelegenheiten und Chancen sowie ueber ihre Realisierungsstrategien fuer diese Chancen zu gewinnen.

Die Untersuchung, die im Fruehling 1989 durchgefuehrt worden ist, hatte die Fuehrungskraefte auf der Entscheidungs- und Durchfuehrungsebene, die fuer das internationale Geschaeft ihrer Unternehmen verantwortlich zeichnen, als Zielgruppe. Sie nahm die Wettbewerbseinschaetzung dieser hoechsten Entscheidungstraeger im Hinblick auf die Position und Wirtschaftsstrategien ihrer Firma fuer 1992 zum Massstab.

Die Antworten brachten bedeutende und wertvolle Informationen ueber den Kurs, den die internationale Geschaeftswelt in den naechsten Jahren einschlagen wird, an den Tag. Firmen mit der Absicht, am europaeischen Markt zu partizipieren, haben bereits erste Schritte unternommen, um sich auf dieses Ereignis vorzubereiten. Wir meinen, dass der Bericht einen Beitrag leisten wird fuer ein groesseres Bewusstsein fuer die Bedeutung des europaeischen Binnenmarktes und dass er den Lesern bei der spezifischen Planung und Vervollstaendigung von Ablaeufen Hilfestellung geben wird. □

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Die Auswirkungen des Europaeischen Binnenmarktes auf den Luftverkehr

The Consequences of the Single European Market for Air Transport

Heinz Ruhnau
Chairman of the Executive Board
Lufthansa German Airlines

The development of air transport is dependent on a great many factors. In addition to political and economic changes, transformations of a social and technological character also come into play. This environment provides substantive grounds to expect further growth in air transport in the coming decade.

Political tensions are easing throughout the world. Events are unfolding before our eyes that were—even recently—scarcely conceivable. The opening of the socialist states in Eastern Europe will encourage an interfacing in both the social and economic arenas. The worldwide economy continues to grow—in stops and starts—and is increasingly characterized by the globalization of markets.

It suffices to say that air transport will remain a growth industry. Indeed, it will grow more quickly than most national economies. By the year 2000, passenger traffic will nearly double and air freight tonnage practically triple. The largest growth potential is in the Pacific region, but the North Atlantic and Europe will remain significant markets.

The Parameters in Europe

In distinction to the United States, Europe is a configuration of different political, economic, social, linguistic, and cultural systems. This is by no means a disadvantage: these historically evolved differences also represent a source of strength and innovation.

These barriers have not prevented the airline industry from creating a highly efficient air transport system in Europe. The dialogue between the East and West in Europe has experienced its ups and downs, but it never really ceased. There has never been a situation like that between the U.S. and Cuba where two countries with different systems have essentially ignored each other.

Two developments will decisively mark the face of Europe in the 1990s: the single European market (1992) and the reforms in Eastern Europe. With a population of

...air transport will remain a growth industry...it will grow more quickly than most national economies.

over 320 million, Europe will constitute a market with the strongest purchasing power in the world. And the policies of reform in Eastern Europe will provide an additional fillip of energy to the European economies. This development will give Germany the chance to become an economic and political bridge between East and West, and in the process to build up its position as an air transport hub in the middle of Europe.

But there is also a negative factor, one that could

greatly impede further growth in our industry—the infrastructure. At this point in time, air traffic density in Europe adds an aggregate of more than DM 10 billion a year to our costs each year. That doesn't have to be the case: the European air traffic control system has to be unified. There are currently 22 systems in Europe with 44 air traffic control centers; the U.S. makes do with one system and 20 centers. We in Europe can learn something from the Americans.

Large portions of European air space—particularly in the Federal Republic—are reserved for the military. Military aircraft from eight countries train in West Germany's limited air space. Moreover, I am not aware of a single civilian airport in the world whose development has been hindered by their military as has the Frankfurt

If you want to open the sky, you have to build on the ground.

airport with the adjacent American Rhein-Main Air Base. None of this is really appropriate for the 1990s in an era of detente and almost a half century after the end of the Second World War.

Without a solution to the bottlenecks in the air and on the ground, the concept of *open skies* loses all meaning. If you want to open the sky, you have to build on the ground. Concrete proposals have been made and even initial measures for a solution have been put on the table. But if action is not taken very soon, the European air traffic system will stand on the brink of collapse.

One solution—made possible by cooperation between an airline and the railroad management—has moved short-distance traffic from the air to the ground. The *Lufthansa Airport Express* was a pioneering project jointly undertaken by Lufthansa and the German Federal Railways. This train, available only to passengers with airline tickets, runs four times a day between the Frankfurt Airport and Bonn, Cologne, and the Dusseldorf Airport. An expansion of routes and the number of departures, e.g., from Frankfurt to Stuttgart or Nuremberg, is in the planning stage.

Lufthansa Boeing 747's are long-range, wide-body aircraft for passenger service. The European airline industry is subject to the rules of the EC Treaty.

The Structure of European Air Transport

The structure of the European airline industry is moving in the direction of the *open skies* policy. In the past, bilateral air traffic agreements between nations in Europe—as in the rest of the world—constituted the industry's working basis. Given the political structure of Europe, this has created a comprehensive network of relations consisting of a multiplicity of bilateral treaties. These range from restrictive agreements that prescribe an exact 50 percent share for the national flag carrier of each country, enumerating precisely the airports and routes to be serviced, to liberal agreements permitting the airlines of each country a generally free hand in selection and volume of traffic in their flight schedules. The fare-setting process, too, is covered in these agreements, and ranges from the extremes of detailed regulation to fairly complete liberalization.

The Federal Republic has been among the pioneers who advocate liberalization of bilateral air traffic agreements in Europe. The agreement signed by Germany and Great Britain in the middle of the Eighties is one of the most liberal in Europe.

The European Community (EC) in Brussels early on turned its attention to the airline industry, which is subject to the rules of the EC Treaty. It has decided that a liberal policy is to be applied with respect to passengers, goods, capital, and services.

The first tangible intervention by the EC in the bilateral network of relations occurred in 1984 with the drafting of guidelines governing regional traffic. Even if numerous qualifications in the guidelines prevented them from having any practical effect, it was still the first instance in which the Community had countermanded existing bilateral agreements.

The further development of air transport concepts by the EC Commission followed in December 1987 with the adoption of the first comprehensive package of measures by the EC Council of Ministers. This package represented the first steps towards liberalization in the areas of market access, capacity, fares, and competition. At the same time, the Council undertook to embark upon an even more ambitious stage in this direction in 1990.

...the seven largest airlines in the U.S. now command almost 90 percent of the American market.

With an eye on *Phase 2*, the EC Commission presented a proposal on July 19, 1989 that provided for further progress on the path to liberalizing market access, capacity, and tariffs. The main point is that this is the first time that proposals have been made concerning domestic traffic inside the European Community as well as the relationship of the EC to non-EC countries. EC legislation on competition, too, will be applied to existing regulations inside the EC and to relations with non-EC countries.

Finally, this proposal also deals with the process of harmonization, e.g., pilot licensing and airworthiness requirements, as well as with freedom of movement, subsidies, air security, and foreign jurisdiction.

These are all steps down the road to realizing the single European market that is to enter into being on December 31, 1992. The structure of air transport in the EC will then be marked by the following features:

- Uniform EC regulations will replace bilateral air transport agreements.
- Like all other businesses, airlines will enjoy freedom of movement in the member-states of the European Community.
- Free market access will be the rule.
- Legally mandated restrictions on the supply side will no longer be valid.
- Fares and schedules will no longer require approval and may not be put to a vote; only consultations are permitted.

Among others, the EC Commission will be responsible for:

- Rules of competition and merger oversight;
- Supervision of fares and routes;
- Supervision of airports.

Consequences for the Market: the U.S. Experience

Now, what consequences will the realization of the single European market have on the air transport market? Here it would be useful to look at the United States, where the airline industry has been deregulated since 1978. What exactly has happened since then?

Initially, a number of new airlines were founded, rising from 38 in October 1978 to a maximum of 123 in February 1984. Competition became more intense, and air fares were reduced. But the hard battle for market share had the result that the weaker ones either disappeared or were swallowed up by the strong ones. In the process, the strong became even stronger. Concentration increased and, although the number of airlines is again on the rise, the seven largest airlines in the U.S. now command almost 90 percent of the American market.

The American airlines also altered their route structure in order to strengthen their market position. They created hubs at selected airports with an optimum number of connections, and discontinued lightly traveled ones that did not fit their *hub and spoke* concept. The result has been outright market domination at individual airports, with some airlines having captured as much as 80 percent market share at some airports. The consequence has been indisputable: market domination has been exploited to raise fares and to require transfers at one of the hubs for many routes that were formerly serviced directly.

Not surprisingly, deregulation is currently under attack from many quarters. In addition, the pressure to cut costs has led to measures that could impair air safety. One thing is certain: many U.S. airlines lack the financial means to modernize their air fleets. According to a report prepared by the General Accounting Office for a subcommittee of the House of Representatives, almost one-third of the aircraft flown by U.S. airlines are older than 20 years. By the year 2000, that age category will comprise 64 percent. The average age of Lufthansa's air fleet is approximately seven years, and—with scheduled replacements—will sink to around three years by 1992.

The European Way

The question at this point is, will the U.S. experience since 1987 be repeated in Europe? We believe that it won't, at least not in its most extreme form. In this respect, it is important to note that the European air transport system was never as highly regulated as the U.S. system was prior to 1978. For example, around 50 percent of air traffic in Europe consists of charter flights for vacationers or guest workers, and this traffic has been highly liberalized for some time.

Nor does the EC Commission intend to deregulate air transport fully from one day to the next, a fact that is made amply clear by the multi-stage plan described above. The watchword in Europe is: evolutionary liberalization instead of revolutionary deregulation. Free market conditions will appear in Europe too, and new airlines will be founded.

Systems similar to the American hub and spoke also exist in Europe, although the rationale for them has been different. In the past, political and legal considerations have prevented airlines from setting up air routes throughout Europe. In their stead, the airlines were forced to create route systems conforming to a star pattern. Lufthansa, for example, has built up Frankfurt as the hub of its star. To be sure, the 50/50 principle in air traffic agreements has prevented any airline up to the present from gaining a market-dominating position, i.e., a share that is substantially in excess of 50 percent.

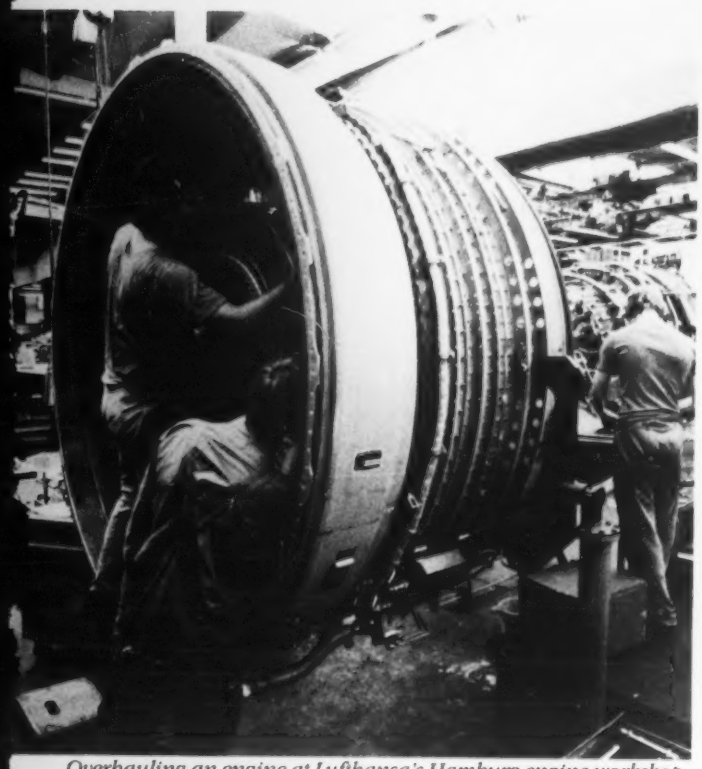
Air fares become market prices, and price policy will become one of the most important instruments the airlines possess in their struggle for increasing revenues.

In a Europe of separate nations, the process of concentration will be characterized less by mergers than by joint ventures...

The significance of electronic booking systems will grow, since they make it possible to provide optimal service to the travel needs of our customers, thereby tying customers even more firmly to the airline.

But, in the competitive struggle, even oligopolies in Europe will witness more concentration: smaller and weaker airlines will search for stronger partners in order to survive. In their turn, the large airlines will try to enhance their market share through joint ventures. After a phase of consolidation, the market dominance of the large airlines will increase.

However, the differences I have already referred to in our economic, legal, and social systems will serve to hinder mergers of the magnitude we have seen in the United States. Indeed, they could conceivably remain restricted to airlines in countries with the same language. In a Europe of separate nations, the process of concentration



Overhauling an engine at Lufthansa's Hamburg engine workshop.

will be characterized less by mergers than by joint ventures, which would leave the individual identity of each partner unimpaired.

Lufthansa's Position

Lufthansa collaborated actively in concluding the liberal air traffic agreement with Great Britain, I have already cited, thereby committing itself to more competition in Europe. We have already formulated our attitude toward the coming single European market in our *Guidelines for European Air Transport Policy*. We accept the challenge of the single market and will avail ourselves of the chances it offers in competition. The main elements in our Guidelines may be summarized as follows:

- We will collaborate constructively on the development of an EC air transport policy.
- We advocate the inclusion of other non-EC European nations in the EC air transport system.
- We ask for an umbrella law on competition and the transfer to European authorities of certain regulatory functions like air-traffic control and professional licensing.
- We advocate a unified air space control and traffic direction in Europe.
- Difficulties should not be created for our passengers at international processing checkpoints in countries outside the EC.
- The future external authority of the EC in its relations with non-EC countries must recognize the global interdependence of air transport.
- Airports must also be subject to competition.

Clues to our position on the single European market are not to be found exclusively in our *Guidelines* though. Our activities have already assumed European dimensions. For many years now we have been cooperating with Alitalia, Air France, Iberia, and Sabena in aircraft overhaul within the framework of the ATLAS group. In Ireland, in association with Swissair and Guiness Peat Aviation, we will set up an aircraft maintenance center. Together with Air France, Iberia, and SAS we created the AMADEUS reservations system. In cooperation with other European airlines we are able to offer our customers a mutually recognized credit card, AIRPLUS. And we have founded an air charter company with Iberia—VIVA—and Euroberlin with Air France.

Under Euroberlin, a Lufthansa/Air France joint venture, we will again be able to fly to our former capital, Berlin, even if not under our own name. Finally, in September of this year we concluded with Air France an ambitious joint venture agreement that is intended to broaden the services both of us are able to offer our customers, while preserving the independence of both partners as well as fair competition in the expansion of air transport with one another.

The policy of our airline, which is intended to enable us to meet the challenges of the 1990s, is encapsulated in four core corporate goals:

1. At the very least, we must grow at the same rate as the overall market. Whoever falls below that trendline is actually shrinking.
2. Ours will remain a top-quality product. We will offer our customers only the very best of service.
3. Our costs must remain competitive. Only economic vigor will permit us to pursue a truly competitive fare policy and provide the financial means we require for our fixed investments, particularly with regard to the expansion and continuous modernization of our fleet.
4. We will remain Lufthansa German Airlines in Europe. We intend to grow, and reject growth via the merger route. We are open to joint ventures that will secure growth, strengthen our position in the market, and enable us to reduce the cost of doing business, but only to the degree that our corporate identity is maintained. The joint venture agreements already cited are consonant with this goal.

The North Atlantic...in 1988, accounted for 23 percent of aggregate world air passenger traffic.

We believe that Lufthansa is well prepared for the single European market, and are fully aware that a strong position in Europe will be a prerequisite of continuing success in global air transport.

Air Transport Relations Between Europe and the U.S.

The North Atlantic has for many years been one of the

If you want to sell products of a high technical standard all over the world, you must know the international market – and you must be able to offer your clients service on the spot.

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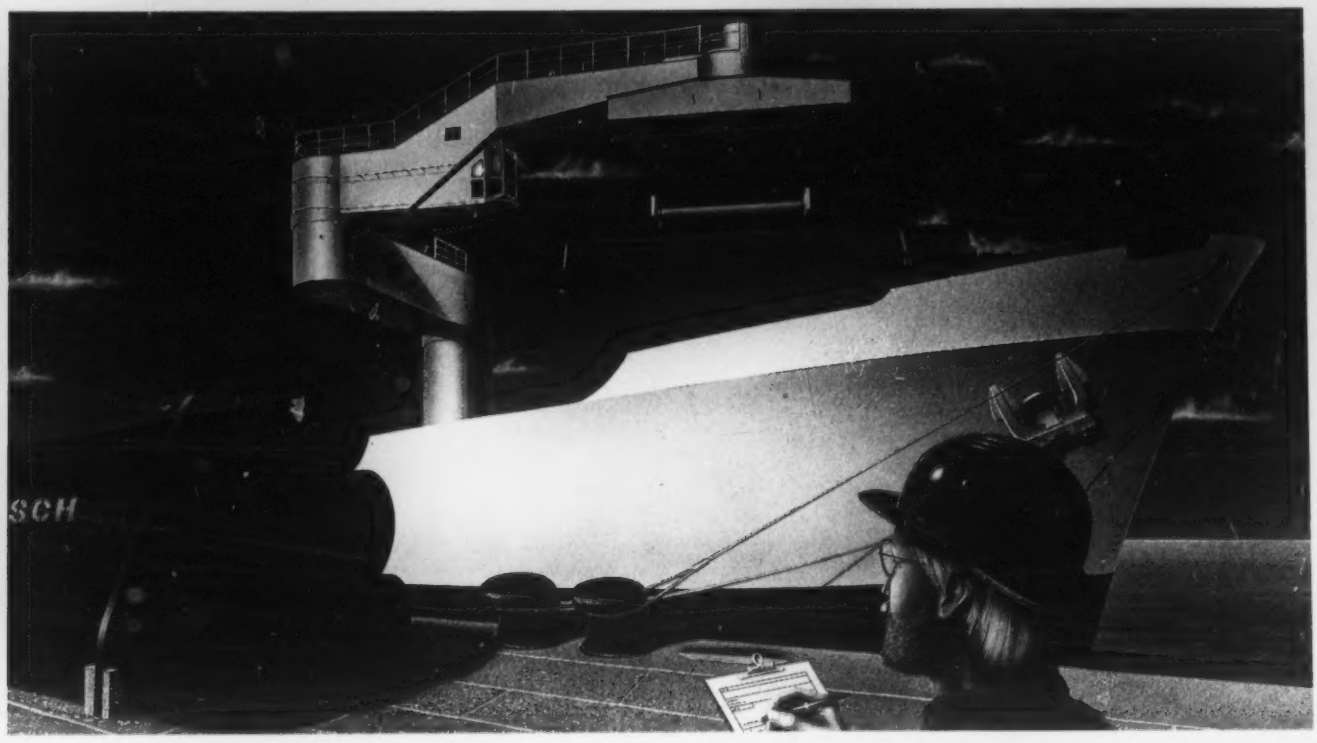

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most important air routes in the world: in 1988, it accounted for 23 percent of aggregate world air passenger traffic. And the U.S.'s McDonnell Douglas estimates that this market will grow at annual rates of over 5 percent in the 1990s. In 1988, over 2.2 million passengers flew between the United States and the Federal Republic. Clearly, the U.S.-Federal Republic market is one of the most significant market segments on the North Atlantic route.

Bilateral agreements also constitute the legal basis for air transport on the North Atlantic route, with the United States having such agreements with practically every country in Europe. This situation—the U.S. on one side and the individual nations of Europe on the other—has put the United States in a strong negotiating position, and it has made correspondingly good use of this leverage. The protectionist stance of the United States has, in the meantime, created distortions in the marketplace. It is really impossible to speak of *fair and equal opportunity*, and I would like to cite a few examples:

The protectionist stance of the United States has...created distortions in the marketplace.

- Eight American airlines serviced 49 European cities in the summer of 1989. They may increase this number if it suits them, since the bilateral treaties with five European countries, including the Federal Republic, permit unrestricted access to all destinations. By contrast, European airlines are permitted access to 20 destinations at most.
- U.S. airlines service the Federal Republic from 18 American cities and may independently decide at any time to add others. Lufthansa, on the other hand, is restricted to servicing 11 firmly fixed cities in the continental United States. An agreement that establishes such an unequal marketplace does not correspond to our concept of fair business competition among friendly countries.
- European airlines are for the most part restricted to flying to the American destinations they have been awarded from their home countries. U.S. airlines, on the other hand, may service their American destinations from *any* of the European cities they have been awarded. As a result, U.S. airlines can provide service on a greater variety of routes, in other words, a much denser network.
- European airlines have no traffic rights within the United States. Their American counterparts by contrast enjoy generous rights in Europe. Among others, this is due to the fact that this area still involves international traffic. After the foundation of the single European market, the European Community will become a domestic market. By that time, at the latest, the United States will have to open its own market if it wishes to retain its privileges in Europe.
- The special status of Berlin—at the present time, only airlines from the Allied powers may service Berlin—enables U.S. airlines, with their *Berlin fleet*, to build up a European base and integrate local European routes into their North Atlantic services.
- North Atlantic traffic accounts for only a small share of the gross revenues of U.S. airlines. By exploiting their one-sided air traffic rights, they have the opportunity of using the profits from their domestic business to squeeze the competition on the North Atlantic.

The unequal conditions have created a situation where U.S. airlines in recent years have progressively raised their market share. In the four largest EC countries—Great Britain, France, Germany, and Italy—their share ranges from 56 to 62 percent.

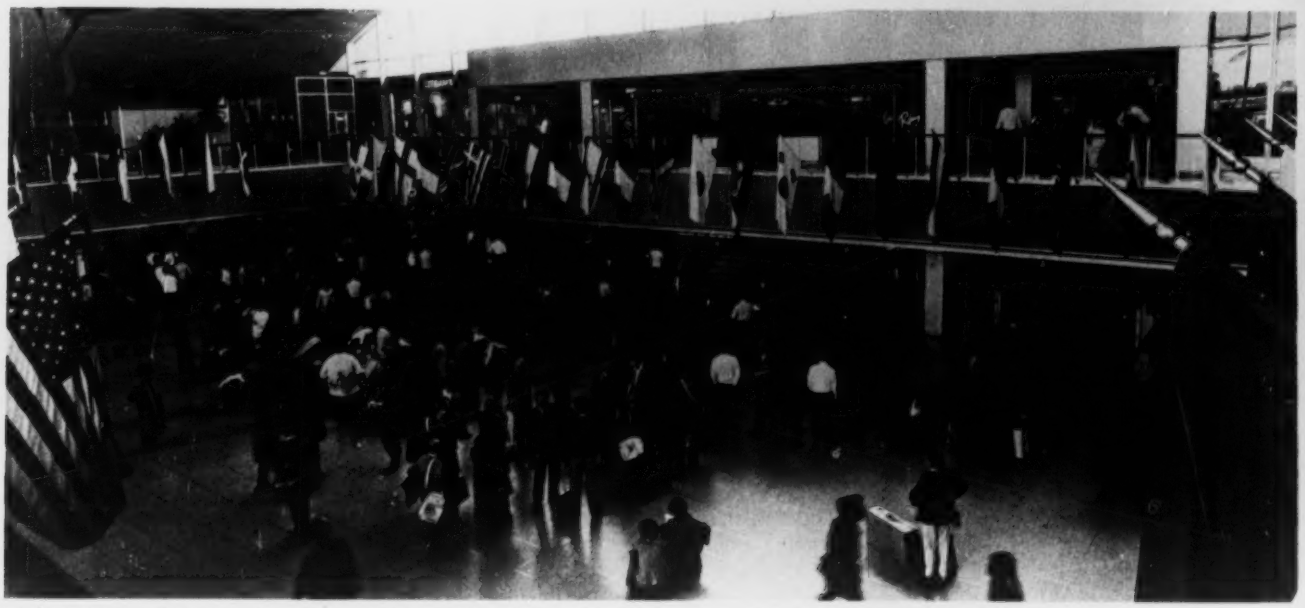
How then would a framework of law governing air transport drawn up according to the principle of *fair and equal opportunity* look? One proposal from our side for an agreement between the United States and the Federal Republic of Germany would be to link the number of destinations granted in each country to their respective populations. If U.S. airlines service six destinations in West Germany with its population of around 60 million, German airlines should be awarded 24 destinations in the U.S. with its population of 240 million.

European countries will be unable to alter the current legal framework as long as each country in Europe negotiates on its own behalf, while the U.S. doesn't commit itself honorably to *fair and equal opportunity* and act accordingly. As a result, there is an ever louder cry here for a united and coordinated conduct of negotiations by the nations of Europe, at least by the EC-member states. If this happens, we could eventually see one air transport agreement between the United States of America and the United States of Europe that supercedes the many bilateral treaties now in effect.

But disequilibrium in the legal framework is not the only point where the protectionist position of the U.S. puts the Europeans at a disadvantage.

- There are frequently too few passport and customs officials at the processing gates of incoming flights of European airlines, which causes considerable delay and inconvenience for our passengers.
- As concerns aircraft maintenance, there have been restrictions placed on European maintenance facilities, including Lufthansa-Technik, even though they have been certified by the U.S.'s FAA. They have been permitted to perform maintenance on U.S. aircraft only in cases where a technical problem that came to light in Europe would prevent its safe performance; routine maintenance is forbidden. Such restrictions are not consonant with open worldwide air transport. At the urging of affected U.S. airlines and manufacturers, as well as European officials and airlines, the FAA finally lifted this prohibition the end of 1988.

This move has met with vigorous opposition by American unions that they have pursued at all political levels. At the same time, they purposely choose to ignore the fact that European airlines contract out substantially more maintenance work in the United States than they receive in Europe. This restrictive position is justified on the



John F. Kennedy International Airport, International Arrivals Building. Over 2.2 million passengers flew between the United States and the Federal Republic in 1988.

grounds of air security. In view of the universally recognized high standards of Lufthansa-Technik, this can only be viewed as outright protectionism and is unacceptable.

None of the above are appropriate elements in business relations between friendly nations. The United States would be well advised to weigh the advantages of short-term success gained through protectionist devices as against the significance of long-term, amicable relations with its economic partners.

Outlook

The creation of the single European market on January 1, 1993 will alter the European air transport market. This will usher in trends similar to those experienced in the United States after deregulation in 1978. At the same time, both the historical, cultural, economic, political, and social structure of Europe and the policy of evolutionary liberalization instead of sudden deregulation will prevent the excesses that arose on the domestic scene in the U.S. after 1978, and which continue to this day.

Air transport relations between the United States and Europe will also change. It is likely that a global agreement will replace the current plethora of bilateral agreements.

The liberalization of European air transport that will transcend borders has a different dimension than American deregulation and represents only one chapter within the framework of a process of comprehensive integration. It's conceivable that America may one day learn from Europe how to compromise mutual differences, to subordinate national interests with a view toward a desired process of unity, and finally to complete integration right up to political and economic unity. □

Ueberblick

Die Auswirkungen des Europaeischen Binnenmarktes auf den Luftverkehr

Die Vollendung des Binnenmarktes zum 01.01.1993 wird den europaeischen Luftverkehrsmarkt veraendern. In der Tendenz wird es aehnliche Entwicklungen geben wie im US-Inlandsverkehr nach der Deregulierung 1978. Gleichwohl verhindern die historisch gewachsene politsche, wirtschaftliche, kulturelle und gesellschaftliche Struktur Europas einerseits und die evolutionaere Liberalisierung statt ploetzlicher Deregulierung andererseits, dass es zu den negativen Auswuechsen kommt, die es im Inlandsverkehr der USA seit 1978 gegeben hat und noch gibt.

Auch die Luftverkehrsbeziehungen zwischen den USA und Europa werden sich veraendern. An die Stelle vieler bilateraler Luftverkehrsabkommen kann ein globales Abkommen treten.

Die Liberalisierung des europaeischen Luftverkehrs ueber die Grenzen hinweg hat eine andere Dimension als die US-Deregulierung und ist nur ein Kapitel im Rahmen eines umfassenden Integrationsprozesses. Vielleicht kann der Kontinent Amerika eines Tages vom Kontinent Europa lernen, wie man Gegensaetze ueberbrueckt, nationale Interessen mit Blick auf den gewuenschten Einigungsprozess zurueckstellt und schliesslich die Integration bis zur politischen und wirtschaftlichen Einheit vollzieht. □

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Der europaeische Kapitalmarkt 1992 — Ein amerikanischer Ausblick

The European Capital Market of 1992: An American Perspective

Kurt Viermetz
Vice Chairman
J. P. Morgan & Co.

1992 doesn't just mark a specific point in time. It has become a symbol and is today synonymous with the completion of a single European market. This development is based on the *Single European Act* of 1986. By this act the European Communities' Commission is asked to submit proposals for the creation of a single market for approximately 300 sectors. Details can be found in Lord Cockfield's *White Paper* of 1985. Its aim is the dismantling of all physical, technological and fiscal barriers to allow the free movement of goods, services, capital and people within the Community. From this point of view, 1992 involves a comprehensive free trade agreement.

However, 1992 will not be realized without further conflicts. I believe that problems will arise particularly in cases where governments are asked to give up their traditional sovereign rights. This applies in particular to fiscal and monetary matters.

In the interest of fair trade, the European Commission suggested that the member countries dismantle the differences in taxation of earnings and in the value-added tax. The reasons for this are clear. However, any disagreements as to how to proceed should not be allowed to

...problems will arise particularly in cases where governments are asked to give up their sovereign rights.

obstruct the unification process in other areas. From Wall Street's point of view, one should agree with those who place little importance on a complicated bureaucratic standardization of taxes. It should be left to the free market forces to produce tax adjustments. Competition between different tax systems is more effective in contributing to a harmonization of taxes than protracted political negotiations in Brussels.

Is a European Central Bank Necessary?

The second conflict arises on the way to a monetary standardization. It is widely held that a true single market can only come to pass by creating a single currency controlled by a European central bank.

Needless to say, the creation of a European central bank would send vital impulses to the single market. However, one certainly cannot say that the single market would not be viable without a European central bank and a single currency. The continuous expansion of world trade since the early Seventies—even without fixed exchange rates—is ample proof. The most important prerequisite for booming world trade is still the full implementation of the free trade principle.

Monetary and political unification is a desirable goal in

The members of the European Commission take a break from their deliberations.

the quest of making Europe an economically strong continent. However, neither is expressly part of the 1992 project. It is difficult enough to realize the objectives of the *Single European Act*. This alone will put the political will of the EEC countries to a severe test. The single European market threatens many historically grown interests. And furthermore it demands that countries, which are very conscious of their independence, just cede part of their sovereignty to the EEC. In this connection I should like to raise the following point: in the Eighties, Europe went through a period of high unemployment and low economic growth.

To eliminate these major problems, the EEC should, therefore, first concentrate on measures which promise the quickest and greatest success. As far as I am concerned, this is the single market, accompanied by an elimination of red tape, more competition and growing trade. The single market will thus release enormous forces. They will trigger a faster and bigger push of economic growth than any political and monetary unification could ever do—which, in any case, would be a long drawn-out process.

Let us now come to the central issue. What is the importance of 1992 for the European capital markets? I shall be pleased to offer you my opinion from the perspective of the Treasurer of an international bank, which feels at home on both sides of the Atlantic.

Some major points: the single market, understood as a free and open market without any additional monetary and political unification, will result in considerable changes and structural shifts on the market of goods and the financial markets. Stiffer competition will force many companies to cut costs and to improve their efficiency. Companies which had previously been protected against international competition through protectionism will disappear overnight, merge, or will be split up. The unrestricted movement of goods and services within the EEC will, however, allow (I might even say force) companies to base themselves wherever it is economically most meaningful.

Just as U.S. companies move from New York to Dallas, European companies will in the future transfer their head offices from the UK or West Germany to the south of France or Spain, or vice versa.

The financial markets will develop similarly. Any left-over capital movement controls will be abolished. Money and capital can and will therefore move to wherever

the highest yield is offered,
taxes are the lowest, and
the most stable currency prevails.

New products and innovative investment opportunities, such as new types of funds, new types of securities issues such as asset-backed bonds, and tax-related changes, will cause investors to move their capital.

...European companies will...transfer their head offices from the UK or West Germany to the south of France or Spain,

With regard to the foreign exchange markets, I expect higher volatility as a result of increased capital movements, investment decisions, constant changes in tax rates and other bureaucratic regulations. Part of this volatility might, however, be offset by the increased willingness of individual countries to safeguard the stability of the European currency system. However, this will result in considerable arbitrage opportunities in interest differentials on interest markets.

Consequences for the Banking Industry

The change in the financial markets will offer great

opportunities for banks, but will also create certain dangers. The Cecchini Report showed that there are substantial differences in the pricing of banking services within the Community. This is reason enough for many banks to venture into new regions within the EEC. Stiffer competition will subject banks to the healthy necessity to review their cost structure (number of employees, branch network) and to charge *reasonable* fees for their products.

1992 will trigger many merger movements in the European banking sector, for the very reason that banks want to grow. But size alone means very little in the banking sector. While an industrial enterprise benefits from growth through cost reductions (economies of

...size alone means very little in the banking sector.

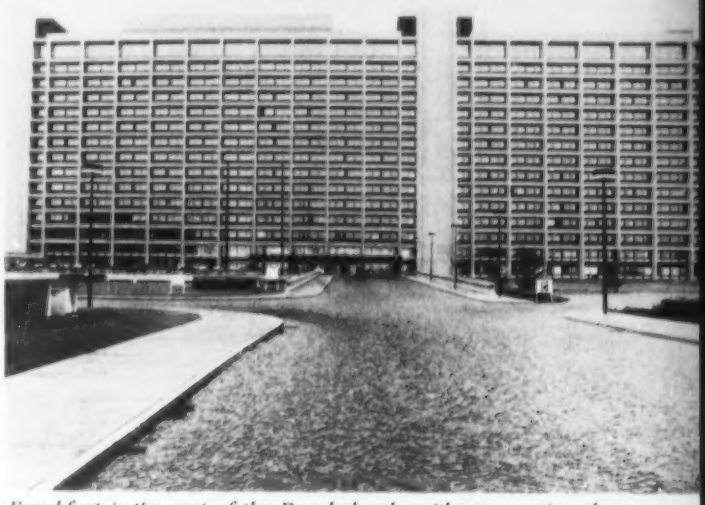
scale), this is different in the case of banks, where essential cost categories (personnel, branch offices, interest rates) are variable. In other words: it does not necessarily follow that costs decline in relative terms with increasing size. Experience in the United States shows that larger banks are not necessarily more efficient than regional institutions.

However, there is another reason for size: the element of self-defense. Larger banks are less prone to fall victim to a (hostile) takeover attempt. Precautionary mergers increase the defense only insignificantly in a world in which size alone is not an absolute obstacle to a takeover. Moreover, merger without a clear improvement of the earnings situation makes the new entity rather more susceptible to a takeover.

Their penetration into the large area of financial services (such as investment banking, asset management, insurance business) opens up an additional growth potential for banks.

A broader product mix can lead to positive diversification and, under certain conditions, also to cost reduction. However, it must be kept in mind that there are no simple solutions for the construction of new financial supermarkets. A bank's expansion plans must always be geared to the specific market conditions. Wholesale banking is already extremely competitive in Europe. Margins are thin. Short, medium, and long-term industrial credits do not offer great opportunities. There are hardly any unused market possibilities. A sudden onslaught of many banks on this market would result in an overcapacity, resulting in losses. As a prime example of such a development, I have only to mention the situation in securities trading after the *Big Bang* in London.

However, we should not be surprised by enormous changes in retail banking. In some European countries, these markets have so far been anything but competitive. German banks, in particular, can use their superior product knowledge. However, exporting financial services is not as simple as exporting industrial products. Essential prerequisites are local representation and a thorough knowledge of the local market. Two factors then lead to success: either product differentiation based on know-



Frankfurt is the seat of the Bundesbank, without question the most important central bank in the European Community.

how or the sale of standard products at lower cost.

However, profitability is *the* most essential prerequisite for expansion in foreign countries. It is more important than market share. Only because customers have business relations throughout Europe and will spend their vacations abroad, which in the future just involves other parts of Europe, does not mean at all that a bank must be represented in all cities of the EEC. Customer service can be offered throughout the EEC through credit cards and Eurochecks.

An essential prerequisite for a widespread network of branch offices abroad is the ability to offer better services

Wholesale banking is already extremely competitive in Europe.

to local customers than the traditional local bank.

Yet regardless of how expansion plans will be implemented on the EEC market, whether through

establishment of own branch offices,
acquisition of or merger with an existing bank, or
a joint venture,

financial analysts, rating agencies and stock prices will more than ever before be the severe judges of these management decisions.

1992—As Seen from Outside Europe

I would like to mention briefly how the *rest of the world*, and particularly the United States, sees the Europe of 1992. From the very beginning, the U.S. has strongly supported Europe's unification. The U.S. is Europe's most important trading partner, and U.S. companies maintain production facilities throughout Europe. Consequently, there is no doubt at all that the U.S. will applaud the efforts to strengthen Europe's economic growth.

There is also no doubt that 1992 will offer advantages

The new headquarters of J.P. Morgan & Co. and Morgan Guarantee Trust in New York.

to both sides of the Atlantic. Nevertheless, trade relations between the U.S. and Europe are increasingly fraught with tension, and in particular with a view to 1992. The *rest of the world* worries, and these worries are related to the catchwords Fortress Europe.

It is feared that the European Community's Commission is being pressured into erecting external barriers around Europe. It could be argued that European companies need time to adjust to a large market spanning all of Europe and that Japanese and American companies, which have a longer experience in large markets, might use this time to take market shares away from the Europeans. This is Europe's worry. Both fears, namely Fortress Europe on the one hand, and superior foreign competition, on the other hand, seem to be slightly exaggerated in my opinion.

Concerning Europe's fears: many U.S. companies have had bases in Europe long enough to have become practically part of it. In today's small world, large companies are international to begin with and are no longer thinking in national terms. A successful economic policy should focus on encouraging competition and growth. The question of the nationality of the owners of a company becomes more and more insignificant. The declared objective of the single market is to promote competition, entrepreneurship and innovation. Any protectionism is directly counterproductive to this aim.

Concerning America's fears—or, generally, those of non-European countries: with regard to the financial sector, the European Community's Commission suggested that the principle of reciprocity should be the basis for deciding whether foreigners be permitted to operate in the banking or insurance sector in the EEC. At first glance, this appears to be reasonable. Reciprocity is associated with fairness and equality. Moreover, reciprocity appears to operate as an efficient lever and to cause other countries to open up their financial markets.

However, upon closer inspection the presumed benefits of the reciprocity principle disappear. The concept is unclear and not uniformly interpreted. This is dangerous.

Reciprocity can, for example, be understood within the meaning of the GATT agreements. Namely, negotiation and implementation of matching steps to reduce trade barriers in many areas. This point of view is not shared by the European Community's Commission. It does not want any negotiations, is focusing on one single sector, namely finance, and wants to raise barriers instead of dismantling them.

Another version of reciprocity consists of providing EEC enterprises the same access to foreign markets as is available to foreign enterprises in the EEC. A logical consequence would be the standardization of the Banking Supervision Law in the individual countries. However, the Commission of the European Community has declared that this is not its goal. At the last GATT meeting in Montreal, the Commission of the European Community pleaded for the concept of an effective market access. This was aimed at Japan.

This term is vague and confusing. It can be interpreted by each side as it pleases. There are no provisions for appeal by parties who claim to incur disadvantages.

The *Financial Times* paraphrased this very aptly in a recent issue: "Reciprocity is a missile aimed at Tokyo which will land in New York and explode in Washington on Capital Hill".

Wall Street, therefore, pleads for an alternative, namely non-discrimination between nationals and foreigners. Specifics are legally defined in the U.S. International Banking Act under the concept of *National Treatment*.

This concept has the following advantages:

1) Foreign banks are allowed the greatest possible access to the market.
2) Ambiguities and misunderstandings are essentially made impossible.
3) International differences in banking supervisory rules are respected.

Europe's will and its commitment against worldwide protectionism can also be measured by the EEC's implementation of the reciprocity test.

What are, finally, the prerequisites for a bank, operating successfully in Europe and throughout the world? I am giving you the major policy guidelines:

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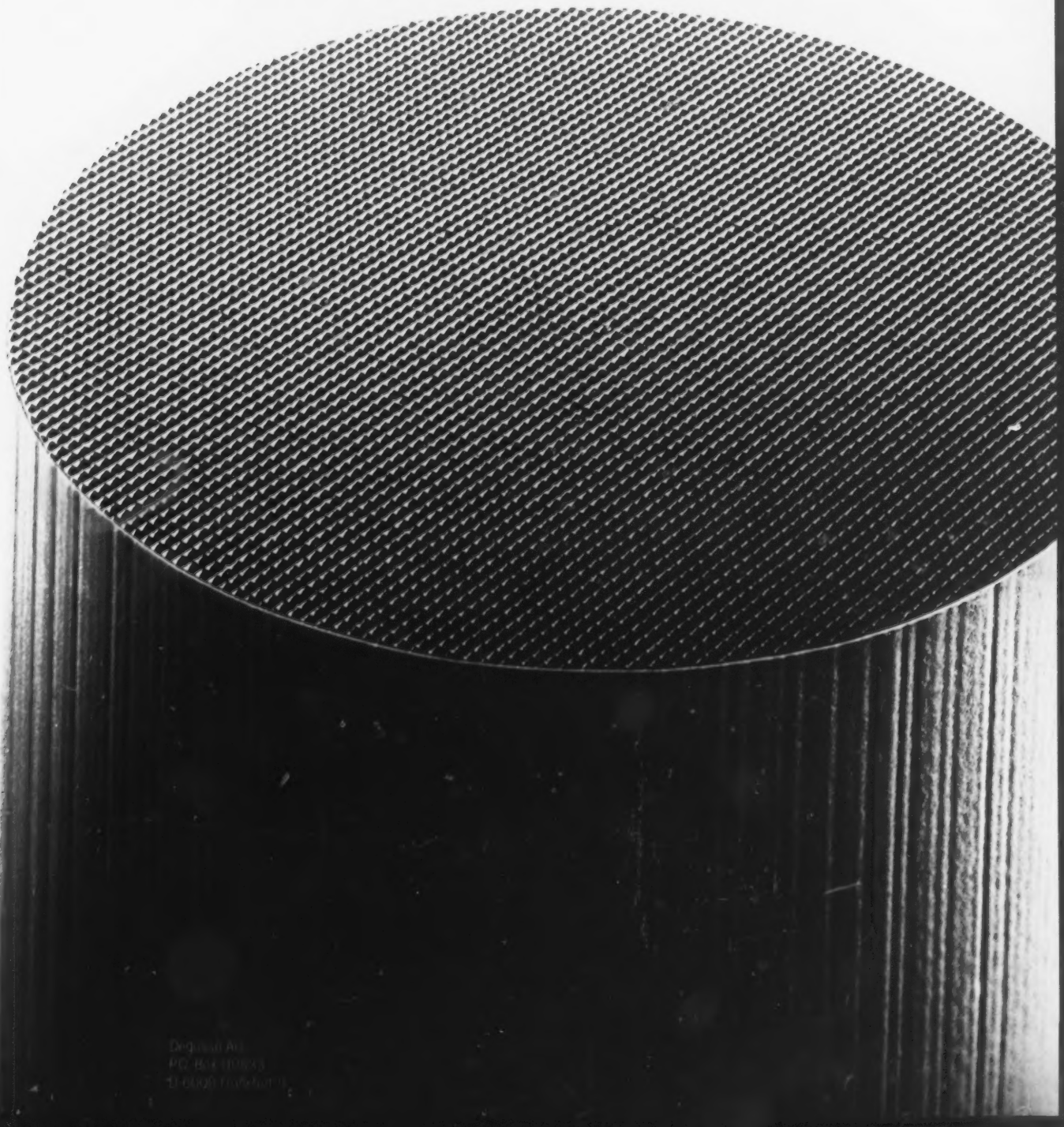

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1) In the future, success demands that a bank wishing to operate in Europe and worldwide have a strong capital base and maintain bases (subsidiaries) in eight to ten major financial centers. Representation in the New York, Tokyo and London triangle is not sufficient. Active representation is needed in Paris, Madrid, Milan, Zurich, Frankfurt, Toronto and Sydney. Only with on-the-spot acquired expertise is it possible to manage the G-7 or OECD markets and sell their instruments.

2) Success also requires a clearly defined product and marketing philosophy. Only this creates the image on which a successful European and global marketing strategy can be based.

3) The third basis for success is composed of management and employees. This is of particular importance to the corporate culture in which—under adequate supervision—creativity and entrepreneurship must thrive.

4) A worldwide strategy demands maximum flexibility, international know-how, and thorough knowledge of clients, products and local markets.

5) Worldwide success requires large investments in technology. This is important for communication, processing, reporting and control.

1992: European Financial Centers Put to the Test

I am now reaching the second part of my presentation which will focus on Europe's financial centers. The past few years were generally characterized by stiff competition among the world's major financial centers. This development took place independently of 1992; however, it is now gaining momentum in Europe in view of 1992.

The competitive pressure among the European centers is essentially determined by three factors:

1) Financial services can be offered and sold across borders in Europe. Banks and their clients can therefore choose the center which is most favorable to them from the aspects of banking supervision and taxation.
2) In the future, the principle of reciprocal recognition of the standard of bank supervision law will apply. Its consequence: banks from countries with less restrictive regulations have a competitive advantage in other countries *vis-a-vis* domestic banks.
3) The importance of the securities business increases further. It can be transferred from one center to another with relative ease. Its consequences: the liberalization process at the individual financial centers is increasing.

I would like to add that the securities markets will further expand, both in absolute terms and in comparison to

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the traditional credit business. There are various reasons for this development:

1) The trend toward privatization of government-owned companies will continue.
2) Industrial enterprises must make substantial investments to increase their capacity and to ensure their competitiveness. The necessary funds will be raised on the capital market.
3) Many industrial sectors must seek new structures. Mergers and takeovers provide new volumes for the securities markets.
4) Finally, financial innovations will trigger additional transactions for optimizing the financial structure.

Frankfurt as a Financial Center

Now with these preliminary observations having been stated, let us take a special look at Frankfurt.

What are the prospects of Frankfurt (synonymous for Germany as a financial center) in the competition between European financial centers?

I would like to mention first that Frankfurt can claim four positive factors:

1) It is the seat of the Deutsche Bundesbank, which is without question the most important central bank of the EEC.
2) At present, the DM is Europe's strongest currency and ranks second worldwide among the reserve currencies.
3) Frankfurt is centrally located in the EEC's strongest economy, and its airport is the most important intercontinental traffic center.
4) The major German banks are ranked world-class and are domiciled in Frankfurt.

From this point of view, Frankfurt enjoys good inherent qualifications for competing successfully with other European financial centers. Unfortunately, its list of negative factors is just as long:

1) Despite its negligible fiscal importance, the stock transfer tax lives on. It forces business abroad for cost reasons.
2) The new withholding tax drives money out of the country, makes government DM issues less attractive to investors, and increases government borrowing costs. It is counterproductive.
3) Frankfurt does not have a market for short-term money market instruments. The federal government does not issue short-term securities. Bank Certificates of Deposit flounder due to the stock transfer tax, the minimum reserve requirements, and prevailing law governing the approval of new issues. These factors also prevent Commercial Paper issues.
4) The complicated approval procedure for new issues has dried up the domestic market for corporate bonds. The need to use the Euromarket has, of course, weakened Germany's position as a financial center. To justify the approval procedure, the argu-

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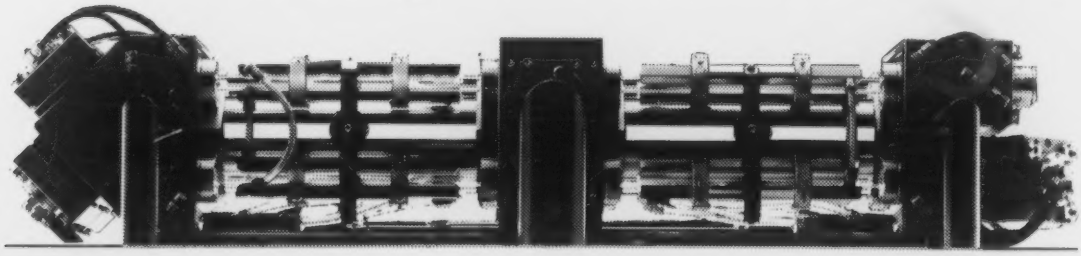

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ment of investor protection is often used. In my view, this argument is no longer valid. Rating agencies are much better equipped to establish creditworthiness than bureaucratic entities. Institutional investors can evaluate the creditworthiness of an issuer themselves, and need no protection.

5) Money market funds have not yet been approved. Established interests in the credit industry and also the Bundesbank objected, delaying any changes. However, this resistance will not prevail against the pressure of competition. As of this coming October, funds from EEC countries can be offered.
6) The trading hours of the Frankfurt Stock Exchange are not geared to the market needs. The regional fragmentation of the exchanges also impedes an efficient market reform.
7) The German futures market is long in coming and pursues a questionable concept from Wall Street's point of view. As we know, it is to be started with stock options. The correct product sequence, should, however, be as follows: futures on DM bonds and 3-month DM deposits, then on the stock index and then options on these futures. It will therefore be very difficult for the German futures market to close the gap with LIFFE.
8) The German Banking Supervisory Authorities plan to further tighten Regulation I and, as the only nation, introduce a new regulation for interest and market risks. It argues that this amendment is necessary for the security of the banking system. Please do not take this question as a provocation: aren't the banking supervisory authorities of other countries also interested in the security of their respective banking system, although they show much more understanding and give their banks more leeway with regard to using new instruments? The new regulation allows subsidiaries of international banks hardly any breathing space with regard to futures and options. This, in turn, further curtails the start-up possibilities of the German futures market. I find it quite surprising that the German futures exchange does not defend its interests more forcefully.
9) The consequent shift of off-balance sheet interest rate business to foreign investors should be undesirable, also from the Bundesbank's point of view. In view of the lower transaction costs and—be it noted—the lower credit risk of futures, F.R.A. transactions compared to corresponding money market operations, it can be expected that, on a long-term basis, market interest rates will be largely determined by these instruments, hence predominantly outside the Federal Republic. It should also be pointed out that interest rate forward contracts and futures are being used more and more to build up foreign exchange forward positions.

It follows that the German market interest rate will more than ever be determined by the interplay between the international foreign exchange and foreign currency interest market, regardless of whether this is desired or not.

It is in the interest of proper positioning of German banks on this market that German institutions be and remain fully involved in these futures market operations.

Concluding Observations

From an American point of view, one gets the impression—and I am saying this with regret—that those who are responsible for Germany's position as a financial center do not correctly interpret the symptoms of our time and are about to pass up a great opportunity. What is needed are the joint efforts of legislators, Bundesbank and banking supervisory authorities, and also the securities exchanges and credit institutions. The joint objective should be to do away with outdated regulations and to establish more flexible general conditions for a modern financial center. I fear that otherwise the relative position of Germany as a financial center will decline in the context of European competition. I would be only too happy if I should be proven wrong.

Let me repeat: Europe 1992 offers enormous opportunities—but the inherent risks should not be overlooked. □

This article is dated April 19, 1989.

Ueberblick

Der europaeische Kapitalmarkt 1992— ein amerikanischer Ausblick

Man kann sich des Eindrucks nicht erwehren, dass aus amerikanischem Blickwinkel—und ich stelle dies mit Bedauern fest—diejenigen, die fuer Deutschlands Stellung als Finanzzentrum verantwortlich zeichnen, die Symptome unserer Zeit nicht richtig erkannt haben und dabei sind, eine grosse Chance zu verpassen. Was wir jetzt brauchen, sind gemeinsame Anstrengungen von Gesetzgeber, Bundesbank und Bankenaufsichtsgremien sowie der Wertpapierboersen und Kreditinstitute. Das gemeinsame Ziel sollte sein, ueberholte Vorschriften abzuschaffen und dafuer allgemeine flexible Bedingungen fuer ein modernes Finanzzentrum zu etablieren. Ich fuerchte, dass sonst die gute Position Deutschlands als Finanzzentrum im europaeischen Wettbewerb geschwaecht werden wird. Ich waere nur zu froh, wenn meine Befuerchtungen widerlegt wuerden.

Lassen Sie mich feststellen: Europa 1992 bietet enorme Chancen, aber die darin steckenden Risiken duerfen nicht uebersehen werden. □

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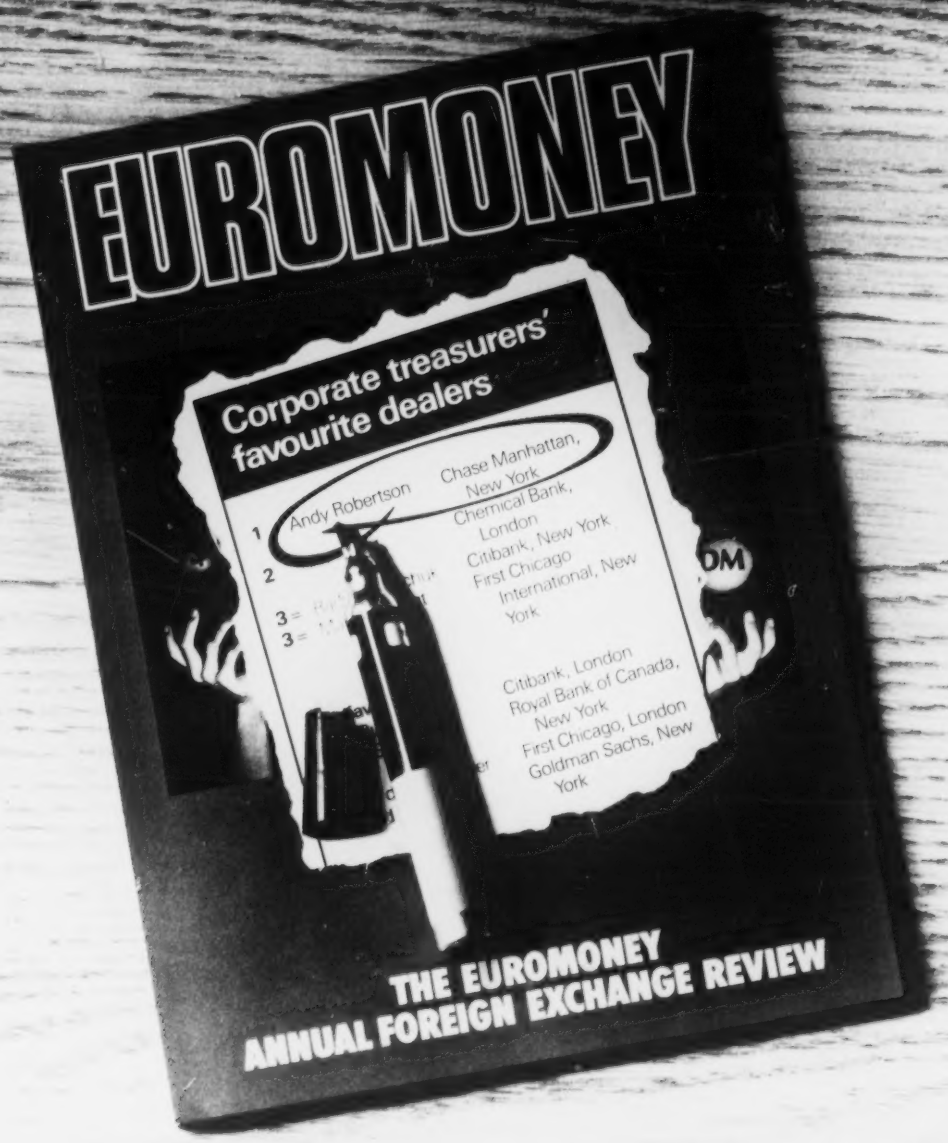

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Der Europaeische Binnenmarkt — Aussichten fuer die deutsche Elektroindustrie im internationalen Wettbewerb

The Single European Market: Prospects for Germany's Electrical Engineering and Electronics Industry in the International Arena

Dr. Karlheinz Kaske
Chairman of the Board of Management
Siemens AG

The future of European industry is vitally dependent on what status it can secure in international markets in such key industries as mechanical engineering, electronics, electrical engineering, automobiles, and chemicals. Success in these areas will simultaneously have an impact on the health of a large number of small and medium-sized firms who—particularly as vendors—work closely with companies in these industries.

The above-mentioned industries will only be able to maintain their leading role if they succeed in rigorously applying to an even greater extent than heretofore various information technologies (*the* key technology of the coming decades), from microprocessors, data processing, and communications technology to factory automation. This doesn't really apply to big corporations, but it does represent a very special challenge to medium-sized companies. To be sure, in order to secure a strong position for the German electronics industry in terms of technology and finances, we must have transnational joint ventures between European corporations, supported by European programs such as ESPRIT, BRITE, and Eureka. This is really the only route that promises future stability to medium-sized companies in particular.

Joint R&D in Europe

The key role of information and communications technologies in determining the relative competitiveness of the industrialized nations can be gauged from an estimate that roughly one-half of the output of goods and services is directly or indirectly associated with these technologies. On the assumption that the significance of communications and information technologies will probably increase even further, all advanced nations are investing ever more money to strengthen their capabilities in these areas. The single European market (1992) will provide greater scope for realizing the developing technologies on a scale similar to that which has existed for some time in Japan and the United States. Therefore, we welcome the decision of the EC to start the ESPRIT Program in 1983 and the R&D Basic Program in 1987, both of which will help European industry to adapt to the coming single European market through R&D joint ventures.

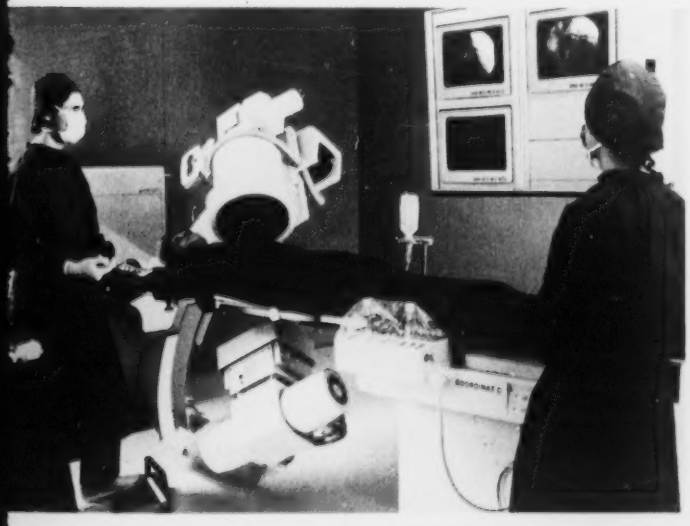
The Global Framework

We have to proceed on the assumption that worldwide economic growth will be relatively modest for some time to come and that the dollar will remain weak for the foreseeable future.

For industrialized countries this means that they will no longer be able to rely so strongly upon exports for economic stimulus: they would be well advised to compensate by stimulating demand at home. In this regard, Japan has developed a comprehensive program to encourage domestic demand so that the economy will be less dependent on exports. Western Europe has more of a problem in this regard, not least of all because it still lacks a homogeneous market and a central policy-making body. However, in view of the growing capital intensity of technical progress, the availability of a large internal market is increasingly becoming an absolute prerequisite for innovation. Consequently, I believe the major challenge for Europe and European companies will be to remove rapidly all existing obstacles to keeping up in the international technology derby.

As competition in world markets intensifies, the importance of their respective domestic markets becomes even more critical for the industrialized nations. This applies particularly to many of the research and capital-intensive electronic sectors in our industry. As an example of the investment stakes, I will cite the DM 2.5 billion that we at Siemens have had to come up with for our share of the R&D and production share for our joint venture Mega Project with Philips of Holland. The startup costs for the development of a modern telephone exchange system today are in the same range.

The company with a large domestic market enjoys a significant competitive advantage from the very outset in that it can obviously enhance profit margins through large-scale production and sales. Economies of scale are of critical importance for amortizing the cost of research and development, not to mention production costs. If the world's economies continue to grow slowly, international competition will intensify and the struggle for market share will become even sharper.



Siemens has developed a new radiographic system for angiocardiography.

In this sort of situation, technical advances assume even greater significance, and from two perspectives:

- On the one hand, it becomes the decisive factor in international competition. The technological fitness of a company will determine whether it survives or not.
- Secondly, technical progress is increasingly becoming an important instrument in solving structural problems in the domestic economy, for accelerating economic growth, and reducing unemployment in the industrialized countries.

The output of electrical products in the coming years will expand at a much more rapid pace than overall global economic growth, making electrical engineering the growth industry *par excellence*. This high growth will very substantially be catalyzed by electronics. The companies and countries that have a strong position in this technology can count on very favorable growth in the future. So it's quite understandable that technological competition in electronics has accelerated so rapidly, that the struggle for market share has become so intense, and that vested interests in this technology have shifted from the purely business side to include the political dimension, and that for some time now.

...microelectronics is not only an engine of growth...but also a fundamental technology of overall economic significance.

We must be under no illusions: if we Europeans do not work on and develop the fundamentals of information technology on our own, we will have no claim to equality among the industrialized nations, nor will we achieve success with our exports in international markets.

If we in Europe want to have companies that are on the leading edge of technology, we will also require a European foundation for the manufacture of microelectronic output. Indeed, microelectronics is not only an engine of growth and a technology of the future, but also a fundamental technology of overall economic significance. The incorporation of microelectronics in individual products and systems will increasingly determine our capacity to export and secure the *jobs of tomorrow*.

Free and unhindered access to microelectronic components of top quality is therefore essential. It should be cause for some concern when we see that in the Federal Republic of Germany—and the rest of Europe—substantially fewer integrated circuits are being produced than are being used by our manufacturers. Japan today produces around half of the world's chips, the United States about 40 percent, and Europe only 10 percent.

If European manufacturers of semiconductors want to account by the year 2000 for a global market share in chips that corresponds in terms of value to their own needs, immense outlays for R&D and investments will be required. I view the coordination of efforts towards this goal as a *Community mission* of European manufacturers

and vendors, of their central governments, and the European Community Commission.

Not least of all, there is a tendency to overlook the fact that the theme of microelectronics is not just a matter of concern for a few large industrial corporations but also for a large number of small and medium-size companies, as for example, machine tool manufacturers, who incorporate chips into their products. With the growing significance of so-called user-specific chips, physical proximity and mutual trust between producers and customers assumes special importance because the users' knowledge of their applications flows to the manufacturer. This is an additional reason for us to maintain and expand the manufacturing base in Europe.

The Single European Market of 1992

By international comparisons, Europe actually harbors growth deficits. These have arisen in part because of government regulation and social policies that have restricted the creativity and flexibility of individual companies. I agree without any reservation whatsoever with the view of the EC Commission that Europe is in need of economic revitalization, which can only be brought about by *unchaining* the dynamics of competition and the marketplace. Spain's impressive economic vigor provides cogent proof of the benefits to be derived from freeing up the forces of growth, which were most certainly unleashed by that country's accession to the European Community.

The completion of the single European market is supposed to provide strong impetus to growth through the contemplated complete opening of markets for goods, services, capital, and labor. If all or most of the countries in the Community react positively to the initiation of the single market, the growth dimension of 1992 can actually become a self-fulfilling prophecy just through the potential it will offer for investments in modernizing and automating offices and factories.

Again, the information technology industry in particular will be a key player in that aspect of growth. Indeed, in many cases it will probably be the first catalyst.

At this point, the EC electronics and electrical engineering market amounts to just under DM 400 billion, i.e., approximately one-fifth of the world market. To be sure, in terms of its size the European market is equal to that of Japan. In practice, though, many of its branches are nothing so much as an agglomeration of fragmented single markets that are cut off from one another by various standards and regulations, by public sector procurement policies, or through diverse legal and fiscal regulations.

...we will only be successful if we regard the single market as a sort of "transit station"...

I need hardly emphasize how many products as well as technical, regional, and other definable markets are involved. We should be under no illusions that even a complete dismantling of all border formalities, and all legal and industrial market barriers will have any but a long-term impact on differentiated market segments that are characterized by taste, custom, the bonds of history, and finally by mentality and language. As businessmen, we must do everything in our power to support our governments and the EC Commission in the completion of the single market, even if this means sacrificing one or another short-term advantage.

The elegant headquarters of Siemens AG in Munich, West Germany.

But we will only be successful if we regard the single market as a sort of *transit station* in order to remain competitive around the world with the United States and Japan, as well as with the threshold nations of the Pacific Basin.

The key to the theme of globalization is the thesis that a business can only achieve durable success if it secures an important market share in a least one, better yet two, of the Triad markets—the U.S., Japan, and Europe.

However, globalization means not only increased competition in distant markets, but here in our own European house as well. Our non-European competitors are preparing themselves for this scenario too. So, we will have to clear the decks, and also insist on reciprocity with respect to open markets, which has nothing to do with the specter of *Fortress Europe*.

ESPRIT: Palpable Achievements

A program such as ESPRIT offers participating companies and research institutions extremely attractive possibilities to prepare (in a cooperative R&D venture) for more intensified competition after 1992. We have seen in the last few years that there are a large number of firms in Europe who are eager to seize the opportunity for cooperative programs.

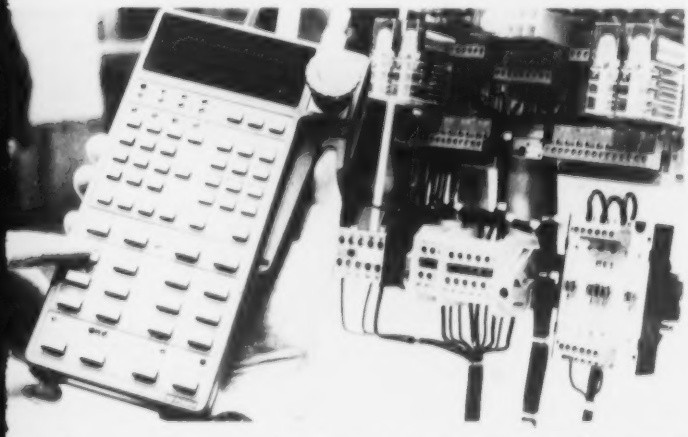
Alongside many other companies with significant interests in communications technologies, Siemens is an active partner in ESPRIT. On a more modest level, we are also involved in programs such as RACE and BRITE. From the former, we expect to achieve rapid progress in basic

Telephones are a fact of life for brokers (above). Siemens estimates that growth in demand for telephones will continue to expand steadily.

technologies involving broad-band communications and the acceleration of international standardization.

The projects comprising Phase 1 of ESPRIT are already so far advanced that we can make some concrete statements regarding the quality of the cooperation, the results to date, and their foreseeable significance for new products.

- In the area of microelectronics, one laboratory model has led to the development of a family of gate arrays that will be in the next generation of computers. We are now offering related gate arrays in the European and American markets.
- Another project resulted in the creation of a large generation of computer-aided-design software for the development of integrated circuits. Here at Siemens we have been able to use blueprints for machine tools in several divisions for sophisticated circuits. Not least of all, the fallout from this project has had an impact on the VENUS project (VLSI), which will be introduced at some 30 German and other European universities and institutions of higher learning to support research and instruction in information technology.
- As regards office systems and communications, the Office Standard Architecture (ODA) is now the standard for document exchange. ODA, a concept that originated in Europe, has been refined and systematized over the last seven years. It is in the realization of tasks like these, on the leading edge of standardization, that we can detect the added value of pan-European R&D programs as contrasted with uncoordinated individual projects. One ESPRIT project has been working for three years on a parallel track with these activities: operating in tandem with the work being done in committees on standards, teams involved in this cooperative effort from the most important European manufacturers have demonstrated with the Office Document Architecture how one can overcome barriers to the exchange of documents between heretofore incompatible systems.



Siemens new relay module for use by machinery manufacturers to meet safety requirements for construction equipment and operation of industrial robots.

...in the realization of tasks like these,...we can detect the added value of pan-European R & D programs...

In the area of CIM (computer-integrated manufacturing), we also have an international effort to integrate components and systems produced by different companies with the least possible technological complexity and at the lowest possible cost. An ESPRIT consortium made up of manufacturers and users is especially advanced in global conformity tests. *SPAG Services*, an initiative that grew out of contacts developed by the ESPRIT program, is currently setting up—at the behest of the consortium—a worldwide distribution network for so-called conformance testing tools.

The interim report on ESPRIT is overwhelmingly positive. Among others, it has demonstrated its utility in avoiding duplication of effort and reducing development timeframes and costs.

On balance, the program's merits are twofold. On the one hand, it has broadened the base of Europe's information technology sector; on the other, it has raised the technological capabilities of the major firms in the field. These benefits clearly outweigh some of the drawbacks, as for example, the tedious process of negotiating the disparate interests of many partners at the onset of each project. Nor should we underestimate the benefit derived from this sort of supranational cooperation in R&D in making all of the participants more truly *European* in outlook.

We understand and affirm the position of the EC Commission in insisting that results be relevant to the market. The achievement of economically useful results from our own R&D programs enjoys the highest priority at Siemens, and we provide the necessary resources to shorten the road between research and the creation of a new product or technique. □

Ueberblick

Der Europaeische Binnenmarkt — Aussichten fuer die deutsche Elektroindustrie im internationalen Wettbewerb

Fuer die informations- und kommunikationstechnische Industrie der europaeischen Laender ist es schwer, auf dem Weltmarkt gegen Wettbewerber anzutreten, die mit rund 240 Millionen Einwohnern im Falle der USA und mit 120 Millionen im Falle Japans wesentlich groessere Heimatmaerkte besitzen. Die von einer Technologiegeneration zur naechsten drastisch zunehmenden FuE-Aufwendungen und Investitionen lassen sich bei solchen Marktgroessen besser tragen, und der Schritt in den internationalen Wettbewerb faellt leichter. Wir muessen uns in Europa erst eine vergleichbar guenstige Ausgangsbasis schaffen.

Mit der Vollendung des einheitlichen Binnenmarktes schaffen wir auch unseren Wettbewerbern USA, Japan und den asiatischen Schwellenlaendern auf dem europaeischen Markt verbesserte Moeglichkeiten. Auch fuer uns kann daher der einheitliche Binnenmarkt nur ein Schritt dazu sein, unsere Erfolgschancen auf dem Weltmarkt zu erhoehen.

Wir wissen, dass die Informations- und Kommunikationstechnologien zu den wichtigsten Antriebselementen fuer das wirtschaftliche Wachstum in Europa gehoeren und eine Schluesselrolle fuer die Loesung der europaeischen Zukunftsaufgaben spielen. Die Wirtschaft, die Regierungen und die EG-Kommission muessen daran arbeiten, Europa so auszugestalten, dass diese Technologien ihren vollen Nutzen entfalten koennen.

Die EG-Kommission hat mit FuE-Programmen wie ESPRIT der europaeischen Industrie einen Anreiz geboten, im vorwettbewerblichen Bereich staerker als zuvor ueblich miteinander zu kooperieren. Wir sehen, dass aus solchen Kooperationen Ergebnisse kommen, die in die Produktentwicklung einfliessen und so dazu beitragen, die Position der informationstechnischen Industrie der Gemeinschaft am Weltmarkt zu verbessern.

Ich meine, dass wir durchaus mit Zuversicht in die Zukunft blicken koennen. □

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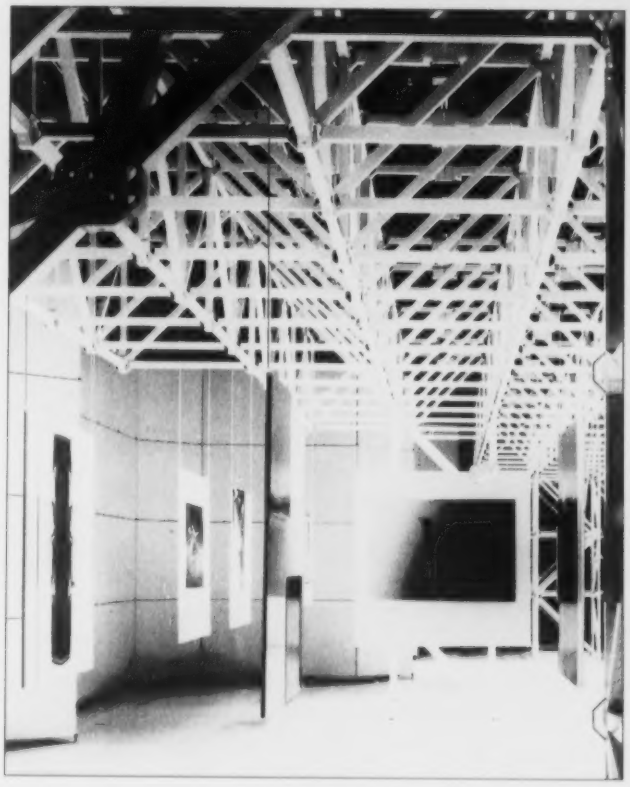

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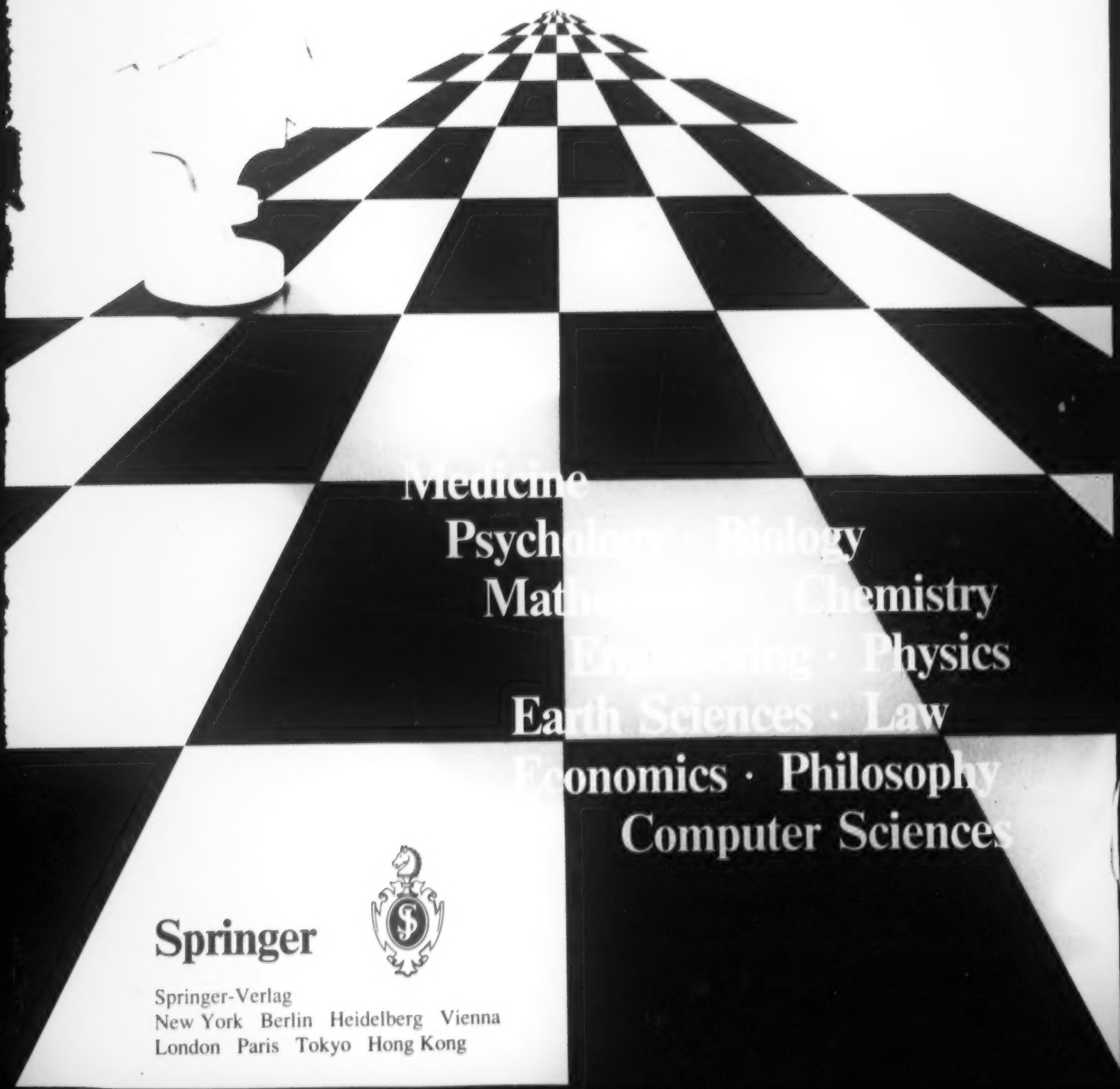

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Europa 1992: Katalysator der Wirtschaft

Europe 1992: Catalyst for Change

Lawrence A. Bossidy
Vice Chairman
General Electric Company

Great undertakings require the confluence of extraordinary people, ideas and events. These were the conditions which made possible the founding of the American republic, and which are now serving as the inspiration for the European Community's ambitious goal of creating a single market by the end of 1992.

Just a few years ago, essays were being written and speeches given about the stalled promise of European unity and a spreading disease called *Eurosclerosis*. Now Europe is alive, resurgent and on the march, with *1992* the rallying cry for economic and political renewal.

When achieved, 1992 will have succeeded in creating an integrated Community-wide market providing greater freedom of movement for goods, services, people and capital. This undertaking is the single most ambitious market-opening initiative outside the Uruguay Round of Multilateral Negotiations. It presents the opportunity to move the world-trading system toward greater openness, benefitting countries and companies alike.

Vigorous public and private sector leadership in Europe, North America and Asia is needed to seize this opportunity, much in the way that nations seized the opportunity more than four decades ago to create an international system of trading rules based on open markets. Those who insisted at the time that such a system was needed to restructure economies ravaged by war were proven right.

Although current circumstances are fortunately less drastic than in the immediate postwar period, the fact is that open trade remains the prerequisite for economic prosperity and political harmony. This is especially true now that domestic markets have been transformed into global markets, vastly increasing the pressures on companies to restructure or perish. The success of that restructuring hinges on an expanding rather than contracting world trading system, one which provides the context for the growing interdependence of economies and in which companies are free to react quickly to changes in markets.

...domestic markets have been transformed into global markets, vastly increasing the pressures on companies...

Given these stakes, it is not surprising that 1992 has served as the lightning rod for concerns over a *Fortress Europe* in which external barriers replace internal ones. Such an ambitious program to reorder the *status quo* is bound to raise the level of anxiety on the part of trading partners concerned about the Community's original preoccupation with internal challenges. Now that the focus has broadened to include the external dimension, the pull and tug between trade-restricting and trade-expand-

ing interests is likely to intensify. This struggle will test the strength of individuals and companies in Europe who see their interests as tied to the move toward open markets. This newly-created constituency for change has its counterparts in the U.S. and Japan, where similar challenges exist to counterbalance trade-restricting forces.

The successful outcome of 1992 therefore requires careful nurturing of pro-trade forces in each of these three arenas. Only through such simultaneous, complementary actions will we succeed in lessening protectionist pressure and demonstrate once again the mutual advantages to be gained by a worldwide system of open trade.

Completion of an Idea

1992 is one of the dynamic concepts of the late twentieth century, carrying with it vast potential implications, both politically and competitively.

1992 is less a setting of a date than the completion of an idea: an idea emerging from the ashes of the Second World War that took shape in the mind of one man, Jean Monnet. His idea was powerful in its simplicity: that economic cooperation could end political conflict among the nations of Western Europe; that Europe could evolve from a crucible of war into a cradle of peace.

Monnet had the political imagination, moral courage and pragmatic sense to understand that such an evolution could come to life through several key, interlocking steps. France and Germany—the two adjoining antagonists of three great wars in seventy years—could be reconciled politically through the integration of their strategically critical coal and steel industries; if successful, that experiment could spawn a broader European effort to achieve unity through economic interdependence.

Monnet found a fellow statesman in Robert Schumann. The European Coal and Steel Community they launched in 1952 provided the record of successful economic cooperation that culminated in the 1957 Treaty of Rome creating the original six-member European Economic Community.

A customs union was finally established and tariff barriers eliminated by 1968. By the mid-Eighties, the Six had become the Twelve. But formidable non-tariff barriers to free trade and investment remained, while European economies stagnated and the forward momentum toward political unity seemed spent.

Concerns rose, crystallized in the 1983 Albert-Ball report to the European Parliament that calculated some of the costs of *non-Europe*: for example, $48 billion in restrictive public procurement practices; $14 billion in delays to truck transportation at internal borders. Companies increasingly realized that their own competitiveness in increasingly global markets—along with the potential for renewed European economic growth—could be stimulated by *completing the internal market*.

That became both the goal of the new European Commission taking office in 1985 and the title of its White Paper issued in June of that year. The White Paper, drafted by Lord Cockfield in his role as Commissioner of the Internal Market, identified obstacles to full economic integration, and listed 300 specific *directives* for their removal to be implemented no later than December 31, 1992. In the wake of the White Paper came the signing of the Single European Act at the end of 1985. Upon taking effect in mid-1987, the Act replaced the Community's constitutional imperative of unanimity with qualified majority voting on issues relating to the internal market, with certain notable exceptions such as taxation. The concepts of qualified majority voting and *mutual recognition* in the product standards area cleared the way for 1992 by helping remove some of the chief obstacles to unification.

But the brilliance of 1992 as an idea was the deadline itself: the date became both a forcing mechanism and a rallying cry for action.

Monnet's original idea gained its crusader in Commission President Jacques Delors. Momentum gathered as companies found in the project a stimulus to restructure and retool in anticipation of the single market. And the 1988 Cecchini report on the potential gains of one Europe further strengthened the case for change: an increase in the Community's GDP in the range of 4.5 to 7 percent; an employment jump of between 2 and 5 million; an improvement in the EC's external trade balance

...the brilliance of 1992 as an idea was the deadline itself...

of up to 1 percent of GDP. Even if the projections contained in the Cecchini Report prove optimistic—and even with short-term regional and sectoral dislocations—the drive for 1992 should result in both a more Common Market and a growing market as well.

Not only does the implementation of the directives promise to break down the remaining barriers among EC nations, but it portends the emergence of a single, unified market of some 320 million people. Historic cultural and linguistic differences probably will impede a United States of Europe; but a truly single market and a more unified Europe—the vision of the 1957 Treaty of Rome—should become a reality by the end of the century in most significant respects.

In just the past two years, 1992 has taken off. Two years ago, 1992 was barely a phrase; today it is a frame of reference. Two years ago, 1992 was a date and destination; today, it is a catalyst and a cause of pre-emptive actions. 1992 is happening now. In a sense, it has *already* happened to the extent that moves companies have taken in Europe and abroad in anticipation of 1992 are making it a global competitive watershed.

The Imperative of Globalization

The incentives for medium and large companies to participate in global markets—greater economies of scale and market opportunities—have become increasingly apparent through the Seventies and Eighties. But globalization—that is, participating as both an investor and exporter from American, Asian and European *triad* arenas—has become a definite trend only in the second half of the Eighties.

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For many companies, replacing *domestic* market and competitive horizons with *global* horizons is no longer an option; it has become an imperative. That imperative—some call it *globalization by localization*—is due both to increased foreign competition in home markets and a greater commitment to locally-responsive customer needs abroad. Manufacturing companies, for example, are finding competitive advantages in being able to simultaneously combine worldwide scale with the local flexibility necessary to respond to local product standards, design tastes and distribution needs. The emerging challenge for global companies is to combine those strengths in every market they serve.

What is less apparent—but at least as forceful—is the role of Europe 1992 as a key driver—a prime catalyst—for that globalization trend in two distinct but dynamically related dimensions. One dimension is the initiative taken by European companies; the other is the response of American and Asian companies.

First, 1992 has become a watershed event by spurring a restructuring and resurgence of European industry, creating fewer—but stronger—competitors who combine new European-wide *home market* strength with global reach.

The prospect of greater economies of scale and expanded market opportunities afforded by globalization has its regional analogue in European integration; the single market, for example, allows a French company to become a fully European company and thereby gain the advantages of a much broader base market. That premise has prompted European companies to create competitive efficiencies to match the market efficiencies promised by the 1992 program.

That is why companies such as ABB, Electrolux, Siemens, and Philips—to name just a few of GE's major global competitors—are not only rationalizing organizations and reducing costs, but are making cross-border and inter-continental acquisitions and alliances, effectively redefining the competitive dynamics of industry after industry: in power engineering; in consumer appliances; in medical electronics; in aerospace, and other product sectors. The trend is not confined to manufacturing: banking and financial services, and media and communications are two other arenas in which both cross-European consolidations and transatlantic acquisitions are proceeding aggressively.

This dynamic process has the potential to match in just a few years what it took Japanese companies two or three decades to achieve: greater global reach gained from greater domestic strength. So much for the early Eighties talk of a competitive world dominated by two great sumo wrestlers: a Japanese challenger and an

American defending champion. Europe 1992 makes for a trio, a truly multi-polar competitive world.

European companies are positioning themselves to take on American and Asian companies on equal terms, and on American and Asian turf. They're making alliances around the world flex their new strength. And by seizing the banner of 1992, they have captured the attention of the world.

These actions have not only made Europe the most dynamic competitive arena of the late Eighties, but have accelerated the pace and intensified the stakes of globalization for American and Asian companies as well. This is the second dimension in which Europe 1992 is such a catalyst for change.

Of greatest urgency for non-European companies is positioning within the EC with the prospect of selling into an integrated, growing market of 320 million people. After moving slowly in previous years, Japanese companies have stepped up plans in the last year to build production facilities in Europe, with the U.K. their favorite site. Although companies such as IBM and Ford have been fully *European in Europe* for years, American companies have in the past several years made fewer moves to build European positions in anticipation of 1992. Many are now likely to conclude that regional or global alliances with European companies in specific markets are necessary. Others will invest directly. Each will find its own formula for success.

But how that positioning is achieved—whether through building from established positions or launching entirely new ones—is itself increasingly being judged as a test of a company's seriousness and sensitivity in the globalization arena. The emerging maxim is be European in Europe, just as it is for European and Japanese companies to be American in America. For many companies, that may mean forming alliances—and not necessarily making outright acquisitions—to build long-term, locally-responsive market presence outside a company's home continent. Winning in Europe means working with Europeans, understanding European cultures and business styles, and responding to local market needs.

Being European in Europe also means not just exporting more *into* Europe, but exporting *from* Europe. That could require building *local insider* status with manufacturing and applications functions in the Community. GE's plastics business has achieved that status at its Bergen-op-Zoom facility in the Netherlands; for that business, the concept of *domestic market* does not exist. Just last year, GE Plastics announced a further $2.5 billion investment in a new manufacturing complex outside Cartagena, Spain.

Global markets clearly call for a new way of doing business, one that requires increased ability to react quickly to changes in markets and that emphasizes cooperation and mutual gain. For companies to succeed in this new environment, they will need a worldwide system of open trade.

Trade Policy Challenges

1992 is occurring at a time of extraordinary changes, not only in product and service markets, but also politically. Governments as well as companies are coming under increasing pressure to take action in response to changing competitive realities, particularly the emergence of new international rivals in their domestic markets. As a result, there is growing interest by governments in thinking strategically about their industries and their economic relationships with other countries. Greater consideration is being given to industrial policies and trading blocs, raising the prospect of changing patterns of trade in which investment and regional alliances play a larger role.

Given this convergence of competitive and trade policy challenges, there is little doubt that the actions taken by the Community and its trading partners in response to the single market program will exert a powerful influence on the setting of new trade rules for the new global markets. The key test will come in areas currently uncovered by multilateral disciplines where the Community feels it has greater discretion to define new rules. Examples include services, investment, rules of origin and local content rules. Even in areas covered by GATT codes—such as standards and government procurement—the EC faces the challenge of pushing for greater transparency and market access as it seeks to remove internal barriers to trade.

In each case the Community must resolve the issue of how broadly the benefits of the single market will be shared. The resolution of this issue largely depends on the extent to which the Community submits to internal pressure to use the extension of benefits deriving from 1992 as leverage in bargaining for concessions from its trading partners. Internal pressures are also being exerted to adopt industrial policies targeting the development of domestic industries considered strategically important to EC competitiveness. Countering these pressures are other internal pressures to open markets and accelerate the global adjustment process for European industry before it is overtaken by the next wave of foreign competition.

At the same time, the Community's trading partners face challenges of their own in responding to European initiatives. First and foremost is the fact that the Community does not consider 1992 a formal negotiation between itself and foreign governments. The formal negotiations that are taking place are among the twelve member-states. The U.S. and other non-EC countries with

...the Community does not consider 1992 a formal negotiation between itself and foreign governments.

a stake in the outcome of 1992 policies must therefore find the best means of monitoring and influencing developments in Brussels as well as in the national capitals.

The U.S. government, for example, is encouraging the involvement of the private sector both in monitoring developments in the EC and in identifying priority areas for the government's attention. The private sector also faces a challenge in seeking to build a consensus that encompasses exporters as well as investors, those companies that are already in Europe and those that are not.

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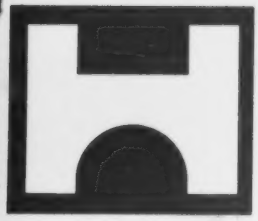

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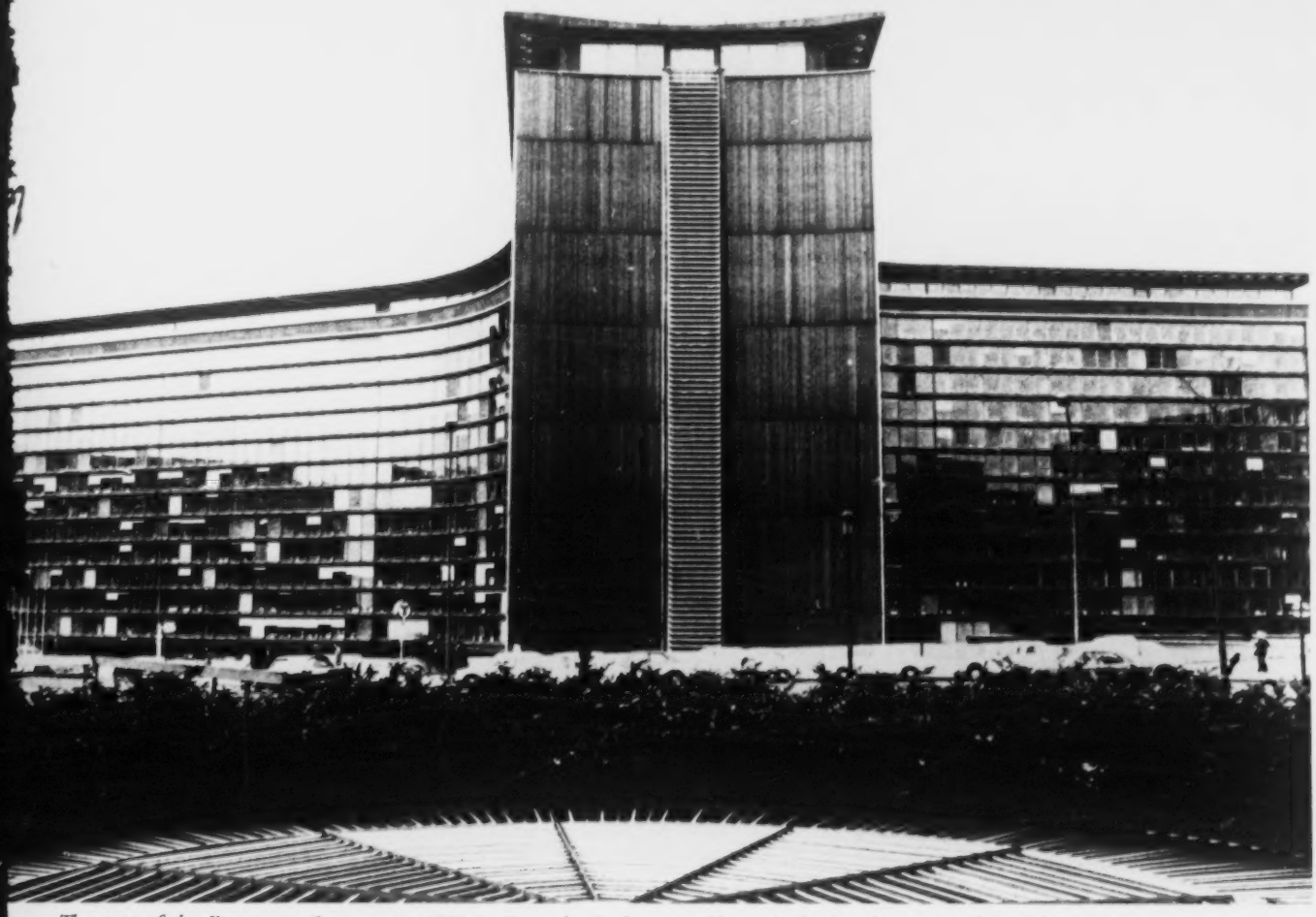


The seat of the European Community (EC) in Brussels. Berlaymont House is the headquarters of the 12-state community.

This would include the thousands of small and medium-size companies who are suppliers and subcontractors to larger direct exporters. In this way, the interests of U.S. industry will be kept whole, preventing a *two-speed* approach to issues that would undercut U.S. leverage.

Furthermore, the U.S. must strike the right balance between recognizing, on the one hand, the opportunities being created by a single integrated European market, and, on the other, the risks that certain EC proposals might have the effect of discriminating against non-EC firms. U.S. Trade Representative Carla Hills' characterization of the U.S. attitude as "optimism tempered by vigilance" seems particularly appropriate. The U.S. response to risks should not be a reflection of our worst fears, but rather our best understanding of developments as they unfold.

Finally, the fact that the single market program is evolving at the same time as the Uruguay Round of Multilateral Negotiations provides a unique opportunity to establish linkages between these two important market-opening initiatives. Both the U.S. and the EC should seize this opportunity to expand multilateral rules as much as possible to those new areas of trade currently uncovered.

Support For Market Openings

Europeans will tell you that 1992 involves no quantum leaps, but rather an acceleration of changes underway for at least three decades. They will also tell you that this process of change is likely to continue after December 31, 1992 as the pace of integration quickens and the scope of Community competence develops. This portrait of evolutionary change, while correct, understates the most compelling aspect of 1992: its ability to capture the imagination of European governments and companies, galvanizing them into action.

1992 has also galvanized the U.S. government and private sector, both eager to support this ambitious effort yet anxious about possible discriminatory effects of EC policies. This anxiety is being allayed in part as the U.S. and EC focus their attention on specific areas of concern, making way for a constructive problem-solving approach in which governments and companies jointly shape policy. In this context, there is an opportunity for companies to throw their weight behind trade liberalizing forces both in the U.S. and EC, while pursuing complementary market openings around the world. □

Ueberblick

Europa 1992 — Katalysator der Wirtschaft

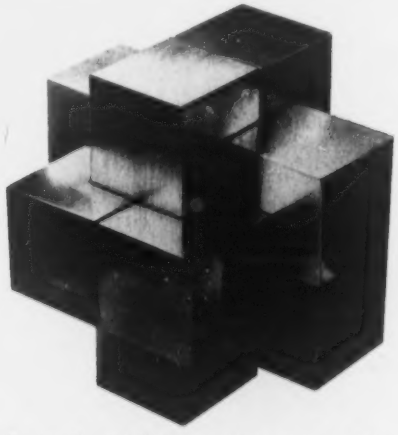
Mit seinem freien Kapital-, Waren- und Dienstleistungsverkehr wird der Ende 1992 verwirklichte Europaeische Binnenmarkt ausserhalb der multilateralen Handelsverhandlungen im Rahmen der Uruguay-Runde die bedeutendste Initiative fuer die weitere Marktoeffnung im Welthandelssystem sein. Genau wie vor 40 Jahren bei der Schaffung internationaler Handelsregelungen wird auch heute das aktive Engagement der fuehrenden Wirtschaftler im privaten und oeffentlichen Bereich Europas, Amerikas und Asiens gebraucht. Zwar gleichen die jetzigen Umstaende nicht denen in den turbulenten Nachkriegsjahren, aber freier Handel ist nach wie vor die Voraussetzung fuer wirtschaftliches Wachstum und politisches Einvernehmen.

Waehrend des letzten Jahrzehnts hat der Internationalisierungsprozess viele, insbesondere kleine und mittlere Firmen dazu veranlasst, am Weltmarkt aufzutreten. Der so verstaerkte Wettbewerb, der auch in den Heimatmaerkten spuerbar geworden ist, hat eine Restrukturierungswelle unter den europaeischen Firmen ausgeloest. Mittlerweile gibt es weniger, aber dafuer groessere und staerkere Unternehmen, die auf dem "Europaeischen Heimatmarkt" konkurrieren. Europaeische Firmen haben in wenigen Jahren einen Prozess vollzogen, der bei den Japanern zwei bis drei Jahrzehnte in Anspruch genommen hat: die Durchdringung internationaler Maerkte basierend auf guten Grundlagen im Heimatland.

Fuer aussereuropaeische Firmen ist von groesster Dringlichkeit, sich innerhalb der EG niederzulassen, um von einem integrierten Markt mit 320 Millionen Verbrauchern profitieren zu koennen. Fuer innereuropaeische Unternehmen geht es mehr um die Frage, nicht nur innerhalb Europas, sondern auch in Laender ausserhalb der EG zu exportieren.

1992 bedeutet nicht nur Veraenderungen des Waren- und Dienstleistungsmarktes, sondern ist auch politisch von grosser Tragweite. Regierungen wie Unternehmen geraten zunehmend unter Druck, durch die steigende Konkurrenz im Inland Beziehungen mit anderen Laendern strategisch zu durchdenken.

Die USA sind mit dem Problem konfrontiert, die Balance zwischen den Vorteilen und Risiken des Europaeischen Binnenmarktes, z.B. von Diskriminierungen, zu finden. Die Charakterisierung der US-Haltung seitens der US-Handelsbeauftragten, Carla Hills, ist zutreffend: die USA sollten "optimistisch, aber wachsam" sein. □



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Was ist die Wettbewerbsstrategie fuer 1992?

What is Your Competition Doing in 1992?

Joan E. Spero
Senior Vice President and Treasurer
American Express Company

Is there some *winning combination* that will guarantee a financial firm success in the new Europe?

Unfortunately, the answer is no. The post-1992 structure of the European banking industry is likely to comprise several different categories: a few global powerhouses, a number of global niche firms and thousands of local firms. The financial institutions that prosper in this new environment—regardless of the category—will be those that are flexible and prepared and that carefully construct their long-term strategies around the exploitation of particular strengths.

Most financial institutions, European and foreign alike, are rapidly building up capacity in Europe, trying to ensure that they will be among the select few that survive in the post-1992 environment. But Europe is already overbanked, with 20 percent more branches and only half the per capita deposits of the U.S. Excess capacity (aggravated by new expansions), together with the expected squeezing of profit margins, will result in a period of intense competition that some institutions will not survive.

U.S. companies are focusing either on European capital markets or, to a lesser extent, on a retail strategy. To cite a few examples of expansion in the capital markets area: Citicorp, J.P. Morgan, Bankers's Trust and Shearson Lehman Hutton are emphasizing issues like foreign exchange, financial hedging products and securities-related activities. On the retail side, we see a mix of strategies. Most U.S. banks have retrenched from the retail

...Europe is already overbanked, with 20 percent more branches and only half the per capita deposits of the U.S.

market in Europe. Only Citicorp is planning a major expansion, the formation of a European consumer banking group in Brussels and a doubling of the number of European households it serves.

Non-banks like Merrill Lynch, AIG and American Express are also expanding their retail activities in the belief that their experience in the U.S. will help them in Europe. American Express, for example, has doubled its European work force over five years, offers cards in ten European currencies and is now offering Optima (a revolving credit product) in the U.K. and France. We have also begun processing for other card offerers in Europe and have acquired—with an eye to the future—a small insurance company with a good retail distribution.

Good and Bad News

With all the changes in Europe's business and investment community, the financial services industry will ben-

efit from the expected growth in the wealth of European consumers. And the closer harmonizing of tax regimes, a common legal structure and common competition and merger regulations will help create a level playing field on which national business decisions can be made.

Not all the news in Europe is good news, however. We also have some concerns:

- There will be a period of turmoil in financial services before the dust settles. We expect huge overcapacity in the industry, as local competitors try to go multinational, even when it does not make economic sense.
- As the internal market unfolds, industry concentration may rise, and there is a risk that pan-European cartels may be substituted for national cartels. It will be critical that E.E.C. competition (antitrust) policy protect Community and foreign-based firms against possible abuse and discrimination.
- Protectionism against non-E.E.C. institutions may be a temptation as the Community moves toward internal liberalization. While the basic thrust of the 1992 program is to open markets, some Europeans are concerned that 1992 will open their doors to Japan and, to a lesser extent, the Americans. They know that some foreign firms are more accustomed than some European firms to operating as if Europe were one market. They also know that many European firms are used to protected national markets.

Headquarters of the BfG Bank in Frankfurt. The post-1992 structure of the European banking industry is likely to comprise several different categories.

We can therefore expect powerful forces to argue for a Europe for the Europeans, which would hurt not only foreign firms but European consumers, as well.

Protectionism

The main concern about protectionism has focused on the public debate over the reciprocity clause in the draft banking, investment services and life insurance directives. The original draft of the reciprocity clause stated that a foreign financial company would only be granted access to the European Community if its home country granted *reciprocal treatment* to all E.E.C. financial companies. The ambiguity of this provision raised the alarming possibility of an interpretation that could exclude U.S. firms from the post-1992 European market.

As a result of strong protests from both abroad and within, the European Community significantly revised the reciprocity provision in the draft banking directive and indicated its intention eventually to make similar revisions in the other two directives. The test now embraces a concept that is basically one of *national treatment*, i.e., receiving the same treatment under local laws and the same competitive opportunities as domestic companies. It thus appears that E.E.C. subsidiaries of U.S. financial institutions will be permitted full access to the internal market for banking and other financial services, since foreign financial institutions in the U.S. already receive national treatment, or better.

Nevertheless, U.S. firms will be keeping a close watch on how the directive is implemented in the national laws of the E.E.C. member states and on how its various provisions are ultimately interpreted. The last remnant of mirror image reciprocity in the directive—a provision calling for negotiations with other countries to obtain competitive opportunities *comparable* to those provided by the Community—sets an unfortunate precedent, which we hope will not be extended to other areas of the 1992 program.

Business Strategies

Despite these concerns, however, American Express believes that the Community's 1992 program for financial services will succeed. Indeed, market forces are already driving Europe in that direction.

European companies have become increasingly aware of the potential competitive power if they unite. They are, therefore, redoubling their efforts to overcome the legal, financial and cultural barriers that stand in their way and in the way of an integrated European market.

At the national level, deregulation is having a dramatic impact on the structure of the financial services industry. Traditional boundaries between business sectors are breaking down, national markets are being opened to greater competition and government-owned financial institutions are being privatized.

Meanwhile, financial deregulation across Europe has led to greater cross-sectoral activity as European institutions move into new lines of business. For example, French and German banks have moved aggressively into

The Heads of State and the Foreign Ministers of the 12 member states of the European Community met in Strasbourg, December 8-9, 1989.

life insurance by establishing link-ups or joint ventures. National deregulation is also allowing financial institutions to unbundle their services and then price each service appropriately. For example, U.K. financial institutions have begun to offer interest on checking accounts, and France is likely to permit this in a year or so.

At the international level, most of the larger European banks are following a strategy that is sensible in theory but far from easy to execute: moving across boarders and business lines in an effort to become integrated global financial services firms.

...the larger European banks are following a strategy that is sensible in theory but far from easy to execute...

In the past two years, Deutsche Bank, one of the most active and ambitious banks, has expanded its range of activities by absorbing BankAmerica's Italian unit, a West German management consulting company, a Portuguese investment bank, a Dutch trade bank, and most recently Morgan Grenfell. Now, Deutsche Bank is looking in France and starting a life insurance unit at home in Germany.

To gain pan-European networks and expertise, many large European banks are also making acquisitions across borders or establishing joint ventures or cross-shareholdings with other European firms. The past two years have seen a wave of takeovers, joint ventures and alliances involving two-thirds of all publicly traded European banks, and the pace is expected to quicken. Banks see major opportunities in Spain, Portugal, Italy and Greece, where the economies are growing very rapidly.

Of course, this strategy does not guarantee success, as evidenced by the collapse of the proposed merger between Amsterdam-Rotterdam Bank of The Netherlands and Generale de Banque of Belgium.

According to analysts at Shearson Lehman Hutton, the strategic moves being taken by European banks fall into roughly six categories: aggressive expansion through acquisition, *de novo* expansion, mergers and acquisitions, acquisition of cross-holdings, formation of partnerships and staying at home creatively.

This market ferment is a major factor driving the E.E.C. toward a single financial market. Companies are pushing forward in anticipation of future regulatory change. This, in turn, is provoking additional changes in national regulation and is facilitating common action by the Community.

In sum, the creation of a single European internal market is a positive development that will strengthen Europe economically and politically. It will also open up a large internal market to U.S. companies, which are well positioned to compete effectively both before and after 1992. The opportunities are many, the challenge great. And it is a challenge that we in the U.S. business community are well prepared to meet. □

Reprinted courtesy of Leaders Magazine

Ueberblick

Was ist die Wettbewerbsstrategie fuer 1992?

Gibt es eine Gewinnkombination, die Finanzunternehmen in dem neuen Europa den Erfolg garantieren kann? Bedauerlicherweise lautet die Antwort: nein. Die Banken landschaft wird nach Schaffung des EG-Binnenmarktes unterschiedliche Kategorien in sich vereinigen: wenige umfassend operierende und maechtige Banken, eine gewisse Anzahl sich in Nischenbereichen tummelnder, aber Tausende oertlich taetiger Banken. Finanzinstitutionen, die in dem neuen Umfeld—unabhaengig, welcher Kategorie sie angehoeren—gedeihen wollen, muessen flexibel und vorbereitet sein, muessen sorgfaeltig an einer Langzeitstrategie basteln, mit der sie eine gute Marktposition erzielen koennen. Nach einer Analyse von Shearson Lehman Hutton koennen die von europaeischen Banken angewendeten Strategien wie folgt kategorisiert werden: aggressive Expansion durch Aufkaeufe, Expansion in neuen Sektoren, Fusionen und Erwerbungen, Kauf von Wechselaktien, Bildung von Partnerschaften, Verbesserungen durch eigene Kreativitaet.

Die Unruhe am Markt ist eigentlich die Triebfeder fuer die Schaffung eines gemeinsamen EG-Finanzmarkts. Die Unternehmen entwickeln sich voran und bedingen dadurch die Anpassung der Bankenaufsicht. Dies wiederum fuehrt dazu, dass die nationale Gesetzgebung geaendert werden muss und erleichtert dadurch das gemeinsame Vorgehen innerhalb der Gemeinschaft.

Insgesamt ist die Schaffung eines EG-Binnenmarktes positiv zu bewerten; Europa wird dadurch wirtschaftlich und politisch gestaerkt werden. Es wird ausserdem auch fuer US-Unternehmen ein grosser Markt eroeffnet, sofern diese in der Lage sind, jetzt und nach 1992 im Konkurrenzkampf zu bestehen. Die Chancen sind vielfaeltig, die Herausforderung ist grossartig; aber wir muessen in der US-Geschaeftswelt gut vorbereitet sein, um ihr begegnen zu koennen. □

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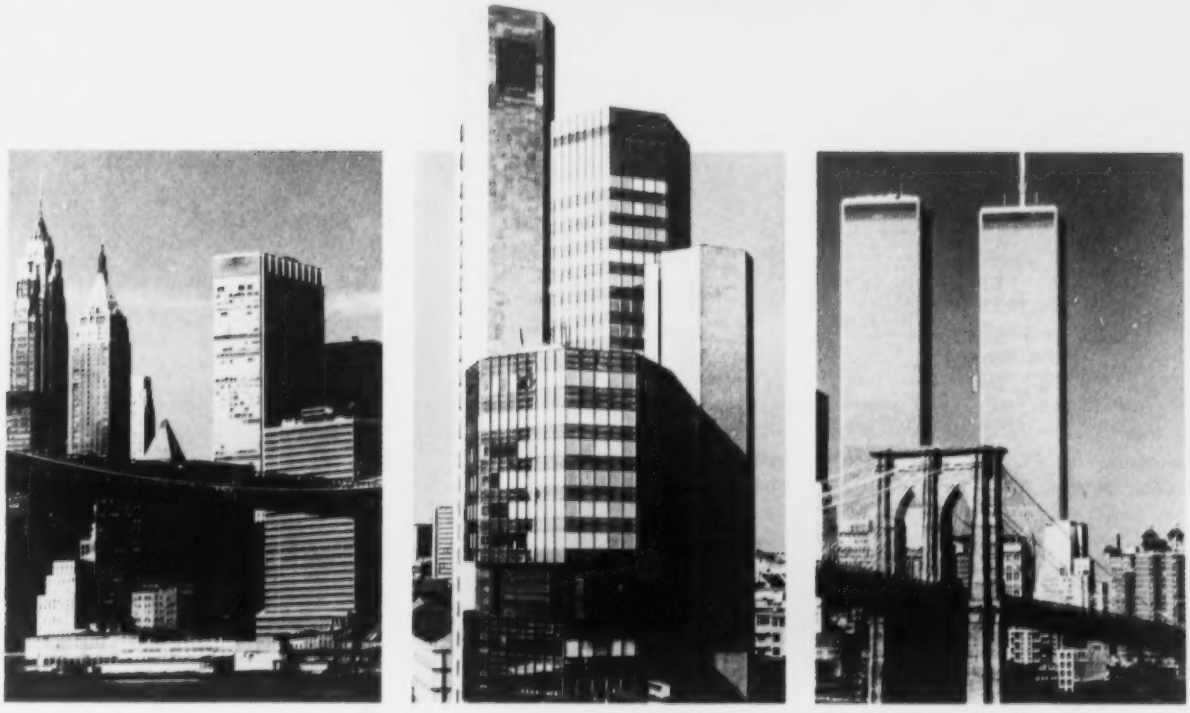

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Corporate communications, public affairs and lobbying for a post-1992 Europe must be seen in the context of Germany and its extraordinarily important role.

Germany sits at the crossroads of an expanded Europe. Nothing that will happen in Europe over the next decade can be seen independently of it. Germany must be part of the corporate thinking for all European, multinational and United States corporations looking to make the most of the opportunities now emerging as the future of a greatly expanded Europe unfolds.

Historic events closed 1989 and changed the face of the European Community and Eastern Europe. Almost instantly, Europe no longer can be described the way it has been for the past 45 years. Without question, the future now is one of a greatly expanded Europe—coming much closer to the one which Charles De Gaulle described in his October 1961 television broadcast as "a Europe balanced between the Atlantic and the Urals."

And Germany Lies at the Very Heart

From the perspective of history, heritage, economic resources and understanding, Germany has claim to a special role in bridging the gap between the developed nations of the European Community and those eager nations now breaking away from the mantle of communism in Eastern Europe.

As West German Chancellor Helmut Kohl said in late 1989, "This is an historic chance. It is time to do more, and we Germans will do it." Deeds matched words and in mid-November Chancellor Kohl set the pattern which others were soon to follow by leading a delegation of government officials and businessmen to Warsaw, with Bonn offering billions of Deutsche Marks in credit guarantees for business.

But West Germany's economic strength and reach had been felt for some time in East Europe, with Germany, according to *Newsweek* figures, "accounting last year for one third of the European Community's $37 billion imports from the region."

Yet the potential is far greater. The opportunity is certainly there and the financial resources of German companies are poised, ready and waiting to head East. Alfred

Germany has claim to a special role in bridging the gap between the...European Community and those eager nations...in Eastern Europe.

Herrhausen, the late chairman of Deutsche Bank, just prior to his tragic death, had been quoted as saying, "Given our history and given our knowledge and given our personal contacts in those countries ... I think we are

almost destined to play the role of a bridge between the western part of Europe and the eastern part of Europe."

German companies are now making sizeable investment offers in the East. Krafft Holtz of Euroeconomics, the London forecasting and consulting firm, predicts that, "Come the year 2000, the East German economy will be almost indistinguishable from the West German economy."

Public Affairs and Communications

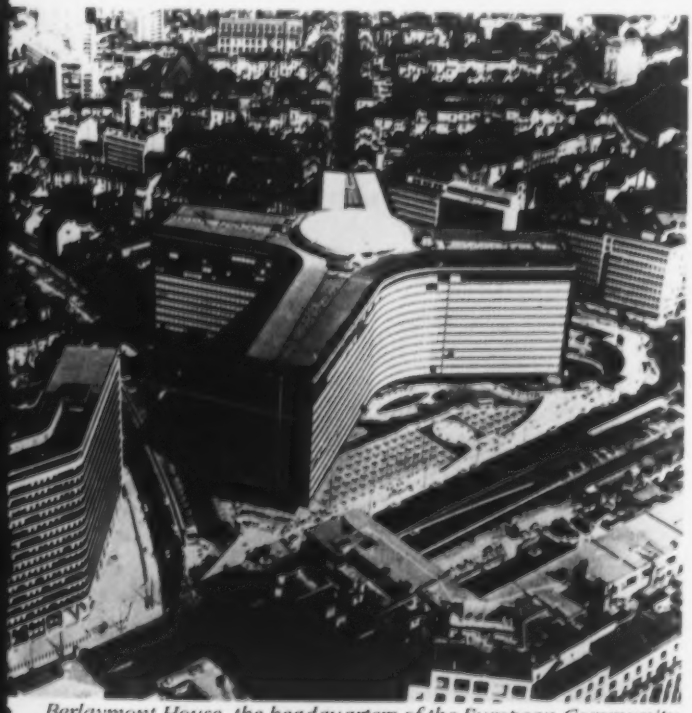
Only months ago, the European economic challenge to U.S., German, multinational and national companies was essentially limited to 1992. Today, 1992 is enveloped by much larger opportunities in the expanded Europe of the 1990s.

When looking at public affairs and how multinational corporations should communicate their goals, strategies and business operations, these are momentous times.

The key issue is whether those international companies want to influence the changes that will occur or merely be influenced by them.

Without clear corporate policy positions convincingly presented, individual companies and the entire European business community will be missing a magnificent opportunity. Beyond individual economic advantage, this opportunity goes to the heart of broad, European-wide economic strength. It combines private and public interests in a very direct manner.

In most situations—and especially complex ones—the hard challenge for corporations is not the act of communicating, but rather the process of figuring out just what you want to say.



Berlaymont House, the headquarters of the European Community (EC) in Brussels.

There are countless corporate communications opportunities. The annual meeting and other shareholder and financial communications, takeovers, mergers, expansion of operating facilities, new product introductions, annual reports, public speeches, public affairs issues and internal discussions with senior management and other employees.

Whatever the circumstance, shortchanging the often painful and time-consuming process of figuring out what you really want to say leads inevitably to muddied, confusing and often conflicting communications.

Preparation for those opportunities is a potent tool for strategy, goal definition and change.

We call it *corporate positioning* and it is critical to effective communications in any environment.

Listening to Economic Voices

Corporate planning and communications reflect very careful listening. No need is more urgent than to listen attentively to a wide range of economic voices, both positive and negative, and to capture the nuances beneath the surface.

One of the most potent forces behind the momentum of Europe is deregulation and the opportunities in a free market. Anyone who had predicted this even a decade ago would have been labeled a wild-eyed capitalist optimist who was probably *hearing* strange voices, but not really tuned into reality.

Discouraged by the abject failure of controlled economies, countries around the world are moving toward reliance on the private sector.

If we do listen carefully to the full range of economic voices, however, the picture is not necessarily as straightforward or rosy as it appears at first blush.

On the one hand, the major developed nations of the world must get their own houses in order if they are to maintain the economic growth necessary to provide markets for the less developed nations.

And on the other hand, many of the moves toward more market-oriented economics do not go very deep. Not infrequently, they reflect a philosophical change without a parallel dedication to making the necessary hard choices. The hazards can be found in the public sector and in traditionally protected private firms and state-run companies that are major sources of employment and patronage.

..."corporate positioning"...is critical to effective communications in any environment.

The economic strength of an expanded Europe depends greatly on substantive economic growth. Eastern European development will take some time and take real investment by corporations which are willing and able to make that long-term commitment. As British Prime Minister Mrs. Thatcher said in late 1989, "One mustn't mistake the intention and the goodwill for the deed."

Policy, Strategy and Tactics

It is clear that Europe will never be the same. There are new sources of power and influence.

It is also clear that there are new opportunities for many companies doing business in Europe. And there are pitfalls. It is up to each company to make that future for itself.

It is the area of corporate communications—public affairs, in particular—which will play a critical role in making an expanded Europe the success it should be.

What should we be doing in our companies about developing an international strategic communications plan? About setting corporate policy for a changed Europe? How can we use public relations and public affairs to help us reach our business objectives in what will be a much more complex Europe of the next decade?

We must ask ourselves: What kind of company do we want to be in the Europe of the future? What kind of company can we be? What do we need to do to get there? Whom must we influence? What must we anticipate? And then, what can we legitimately do and say to get us there?

The core question is one of corporate strategy and policy—public policy—as the new Europe shapes itself. Policy is first, strategy is second and communications tactics run third.

The Larger European Challenge

Establishing sound corporate positions with respect to Europe is complex. Multinational companies cannot afford to view the landscape from just one vantage point—you have to view things from the wider end of the telescope. You must be really international. It's no longer enough to merely transport an idea across borders. Those ideas must be international, with national importance. They must be international first, then German, British, Italian, Hungarian, Polish or whatever second.

Establishing sound corporate positions with respect to Europe is complex.

International, today, is a completely different frame of mind or reference point for both business decisions and communications. We must mix both cultural and geographic factors.

In addition, there is another factor that must be considered in building positions for the future. That is time. One cannot afford, in this case, simply to look at the short-term —nor can one only give lip service to the future.

Thus the process of developing corporate policy, strategy and communications for Europe is at least three-dimensional— involving culture, geography, and time. It is here where we all have to improve and become much more sophisticated in our communications techniques. We have to think differently.

For most companies, traditional corporate communications in Europe has been only one-dimensional. That approach has been guided by local needs. Customers, politicians and decision-makers have been approached on a market-by-market basis. And that was more than adequate for the Europe of the past. And may be appropriate for some going forward.

However, there are more and more companies which should address a coordinated strategy in all markets. For them the future is pan-European.

For most companies, traditional corporate communications in Europe has been only one-dimensional.

We need cross-cultural understandings. We need a *feel* for the international. With a sense of history. With a sense of culture. And with an experienced sense of the refinement and sophistication in the art of politics in Europe.

The person who must control the process of corporate positioning is the chief executive. The implications are simply too vast. Marketing, planning, government relations, public relations, legal, and finance professionals all are essential. These are the key executives, reporting to the chief executive, who must be part of that senior team — and communications is an integral part.

When this process is at work, we cannot lose sight of five communications concepts.

- First is the fact that effective communications objectives must flow from and support corporate policy positions, core strategies and business plans. It is essential so that the corporation, its words and deeds, reflect and enhance one another. Otherwise, communications initiatives are useless or even counterproductive.
- Second is the fact that both business and communications strategies must be flexible and adaptable to unforeseen change. We are still in the very early days of anticipating a strong, expanded Europe. What seems right today may be very wrong tomorrow. There should always be a Plan B readily at hand in case Plan A isn't on target.
- Third is the fact that communications must be tailored to a wide variety of cultures. Strategic messages must be international, but they must be phrased in the context of each national culture.
- Fourth is the fact that credible communications must always be candid and consistent. When and if changes in direction are dictated by circumstances, these changes should be communicated swiftly and candidly as well. Whatever you say goes down the drain if your credibility is in doubt.
- And fifth is the fact that the best—or worst—spokesperson is the chief executive officer. This person is the chief policy maker and strategist, and only he or she has the vision and weight to communicate fully.

The chief executive is best if properly prepared, ...and worst if not.

International Lobbying

A real question is how to shape the emerging change in Europe.

In the United Sates, lobbying has been typified by what many call *buttonholing* a congressman, senator, legislator or regulator in the hallways of Capitol Hill. Working hard and feverishly to convince that decision-maker to vote in your favor is the ultimate goal. A public affairs tactic is a grass roots effort to convince a Congressman that there are important considerations which must be acknowledged before legislation is enacted. Often that includes techniques like telemarketing or direct mail which result in thousands-upon-thousands of letters arriving at a Senator's mailroom.

But Europe is different, people say. In some ways it is, in others it clearly is not. Among leading national and multinational companies in Europe, public affairs has become extremely sophisticated.

In an October 1989 speech before the Libertad conference in London, Lord Plumb DL MEP, immediate past president of the European Parliament, talked about lobbying at both the European Community level and the national level. "...as a result of the Single Act, the major areas of public policy will increasingly have to be resolved at the European level," he said. "The European Parliament has become a key target for pressure by virtually all lobbyists, and particularly for companies which can afford to devote only limited resources to lobbying at Community level and find that the Parliament's amending role and delaying powers offer the best mix when taken in conjunction with the companies' national lobbying activities. In all events, there is no doubting the greatly enhanced importance of the Parliament in the legislative process since the direct elections. The crowds of lobbyists at Strasbourg, whenever any important measure is under discussion, bear witness to this fundamental constitutional development," he concluded.

The European Parliament in Strasbourg.

International lobbying for Europe should include the following key concepts:

- Research the issue thoroughly and document its effect on business.
- Examine pressure groups and their interest in the issue.
- Develop a concise position paper—max 2 pages, plus detailed background.
- Raise public dialogue.
- Develop allies.

"The European Parliament has become a key target for pressure by virtually all lobbyists..."

- Use a parallel lobbying effort.
- Lobby at the European level:
  - Commission
  - Council of Ministers
  - European Parliament
  - Economic and Social Committee (helps shape Commission proposals)
- Lobby at the National Level—national representatives take major policy decisions, have a say in implementation through management committees and enforcement through courts and tribunals.
- Do not just fire-fight—visit Parliament regularly, get to know Commissioners and get to know those at the Commission in Brussels.

At the end of the day, remember—it is becoming very sophisticated and very competitive.

Business Forum

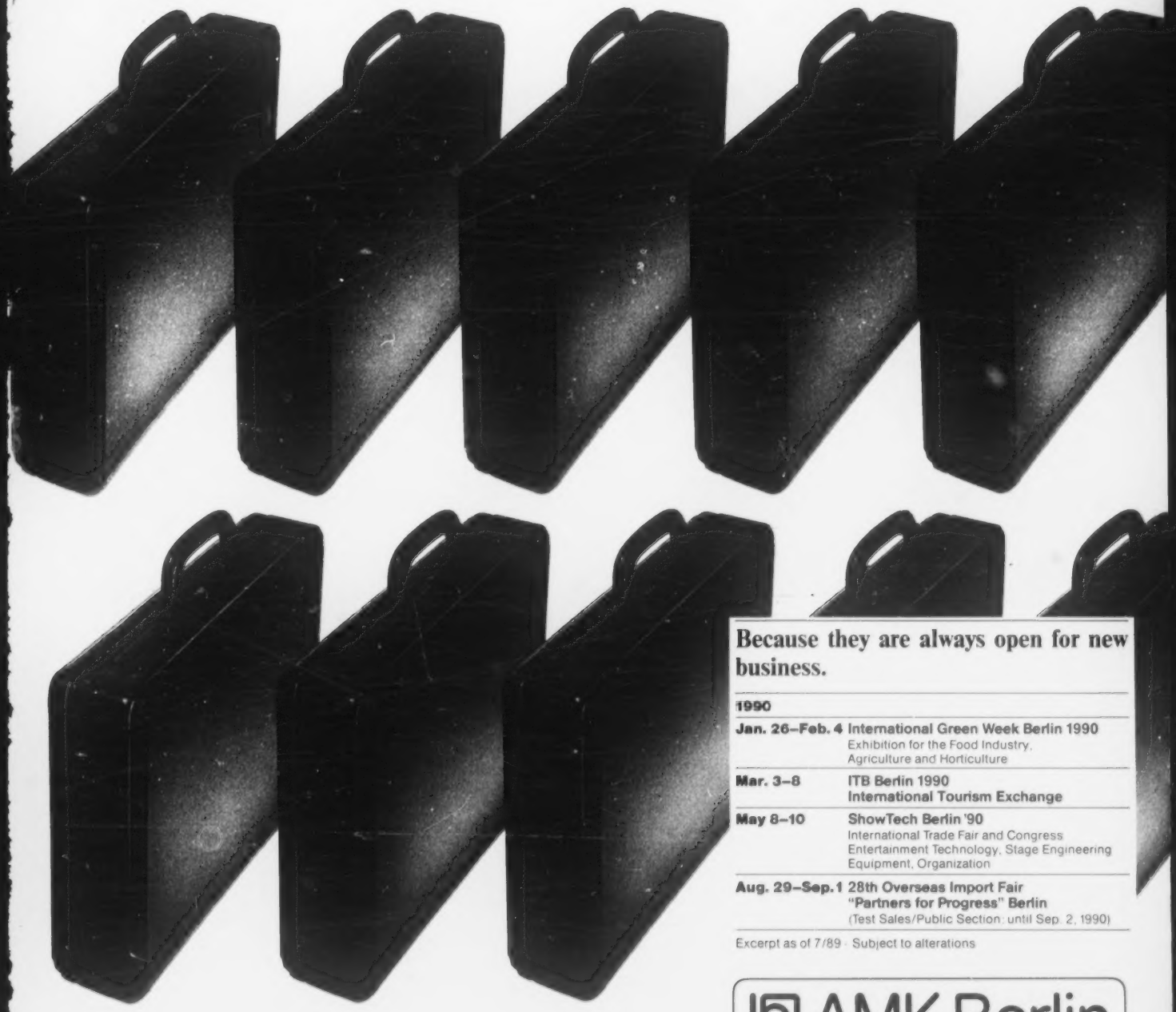
Raising a public dialogue, developing allies and shaping opinion are the most difficult challenges. They are essential to effective lobbying.

Beginning a few years ago, we developed what we call Business Forum. It blends the best of the European custom of debate and discussion with the American concept of issue formation. The premise is that open dialogue on critical issues is the catalyst to change. If you can bring politicians, government leaders, bureaucrats, activists and leaders of business and industry together to discuss issues in an open forum, constructive solutions and positive change will result. Business Forum meetings provide that opportunity for constructive dialogue.

Traditionally, business and government leaders too often see themselves as having diametrically opposed positions. Hostility, confrontation and heated debate are the first impulses. Little is resolved. Business, as a result, may have little voice in what happens in government. And, the inevitable happens. Laws and directives are enacted with little or no input from business, and business has to live with the outcome.

But it doesn't have to be that way. Business Forum public dialogue can be constructive, non-hostile and effective in finding mutually beneficial solutions. The

Why 9 out of these 10 briefcases go to Berlin.



Because they are always open for new business.

1990	
Jan. 26–Feb. 4	**International Green Week Berlin 1990** Exhibition for the Food Industry, Agriculture and Horticulture
Mar. 3–8	**ITB Berlin 1990** **International Tourism Exchange**
May 8–10	**ShowTech Berlin '90** International Trade Fair and Congress Entertainment Technology, Stage Engineering Equipment, Organization
Aug. 29–Sep. 1	**28th Overseas Import Fair "Partners for Progress" Berlin** (Test Sales/Public Section: until Sep. 2, 1990)

Excerpt as of 7/89 · Subject to alterations

AMK Berlin

THE SHOWCASE OF THE WORLD

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Our representative: AMK Berlin, 150 North Michigan Avenue, Suite 1225, Chicago, IL 60601,
Tel.: (3 12) 7 81-62 56, Tlx.: 68 71209 swetrog, FAX/Télécop.: (3 12) 3 46-06 83

The Commission of the European Community meets in Brussels.

challenge is three-fold:

- First, to get the attention of the right people at the right time;
- Second, to present a position effectively;
- And third, to move the issue into a broader dialogue, involving the press and others who influence public opinion.

But, the key is to first surface the issue publicly.

Traditionally, business and government leaders too often see themselves as having diametrically opposed positions.

When done right, the concept of Business Forum goes beyond this to accomplish six objectives:

- One, it provides access to high-level government policy makers and political leaders for constructive discussion;
- Two, it helps avoid misunderstandings which lead to poorly conceived regulations and laws;
- Three, it gives corporations an opportunity to participate in the planning of law and public policy;
- Four, it helps influence change rather than merely reacting to it;
- Five, it provides a critical point of reference for additional contact and public affairs;
- And six, it lays the groundwork for ongoing discussion and influence.

If we are not thinking like this for the future, influencing public policy is going to be an extraordinarily difficult task in the fast moving Europe of today and tomorrow.

Five Keys To Corporate Leadership in An Expanded Europe

There are five keys to making the most of every corporate opportunity as Europe expands:

- First, have the courage to cooperate and further open our markets in all corners of this larger Europe and elsewhere.
- Second, develop and take strong corporate economic action to make an expanded Europe what it can be and make it actually happen. It is our companies, our economic interests, that will make this difference.
- Third, use effective communications that clearly outline the position, strategy and role your company will play in the future of Europe without borders.
- Fourth, as corporate leaders worldwide, achieve a new level of international statesmanship. We must listen carefully, not fool ourselves, but rather respond candidly to the problems we face. We cannot simply focus on the good news we want to hear or say.
- And fifth, think international, with the right measure of *feel*, intelligence, analysis, strategy, and sound communications to tackle the challenges of an interdependent world.

These are exciting times in Europe. They demand different solutions. An international perspective. New ideas and innovation. Perhaps, borrowing from one culture, adapting it to another and coming up with a different technique.

This demands knowledge. Experience. Doing our jobs even better. Looking to a variety of disciplines. And advice and counsel.

Above all, it demands policy and action. Taking the future into our own hands. □

Ueberblick

Wirksame Oeffentlichkeitsarbeit und Kommunikation fuer Unternehmen im Europaeischen Binnenmarkt

Fuenf wesentliche Punkte garantieren, dass ein US-Unternehmen von den Chancen profitiert, die sich ihm in einem expandierenden Europa bieten:

Erstens, der Mut, "mitzuspielen", d.h. unsere Maerkte ueberall in Europa und der uebrigen Welt weiter zu oeffnen.

Zweitens, starkes unternehmerisches und wirtschaftliches Engagement, um Europas volles Potential zu entfalten. Unsere Firmen und unsere Wirtschaftsinteressen sind massgeblich an dieser Entwicklung beteiligt.

Drittens, effektive Kommunikation, d.h. eine klare Darlegung der Position, Strategie und Rolle, die Ihr Unternehmen in einem grenzenlosen Europa der Zukunft spielen wird.

Viertens, angesichts der neuen internationalen Rolle, die unternehmerische Fuehrungspersoenlichkeiten weltweit erreichen, gilt es, ein feines Fingerspitzengefuehl zu entwikkeln und uns den Problemen zu stellen. Wir koennen uns nicht einfach mit dem zufrieden geben, was wir hoeren oder sagen wollen.

Und fuenftens, international zu denken, das richtige Gefuehl zu entwickeln, die Intelligenz, Analysefaehigkeit, Strategie und das Kommunikationsvermoegen, den Herausforderungen einer immer enger verflochtenen Welt zu begegnen.

Europa geht aufregenden Zeiten entgegen. Sie verlangen neue Antworten, eine internationale Perspektive, neue Ideen und Innovationskraft. Vielleicht bedeutet das auch, ein Stueck unserer Kultur an eine andere anzupassen und dabei zu neuen Denkweisen zu gelangen.

Was zaehlt sind Kenntnisse und Erfahrung. Wir muessen noch besser werden und uns nicht einseitig beschraenken; wir brauchen Rat.

Vor allem muessen wir etwas tun. Wir duerfen nicht tatenlos zusehen, wie sich die Zukunft entwickelt. Es liegt an uns, diese zu gestalten. □

You don't have to be European to appreciate European style.

Kempinski is a lifestyle: that of our guests. Here one resides in elegant surroundings, enjoying the casual yet cultivated ambience and mixing with his peers. That's what Kempinski patrons from all the world treasure about "life à la Kempinski". Each of our hotels has its own individual tradition, mirrored in its architecture. And each is endowed with its own quite distinctive personality, deriving from this tradition. Kempinski connoisseurs savor the differences. All Kempinski Hotels share a common heritage of gracious hospitality in the classic tradition of Europe's great hotels. With modern amenities contributing, of course, to today's service concept.

Welcome to Kempinski.

KEMPINSKI
HOTELS

BRISTOL HOTEL Kempinski Berlin*
THE LEELA Kempinski Bombay
HOTEL LIBERTADOR Kempinski Buenos Aires
HOTEL 21 EAST Kempinski Chicago
THE GRAND Kempinski Dallas
HOTEL GRAVENBRUCH Kempinski Frankfurt*
ATLANTIC HOTEL Kempinski Hamburg*
HOTEL VIER JAHRESZEITEN Kempinski München*
SUTTON PLACE HOTEL Kempinski Toronto*
HOTEL PLAZA SAN FRANCISCO Kempinski Santiago
CIRAGAN PALACE HOTEL Kempinski Istanbul (1990)

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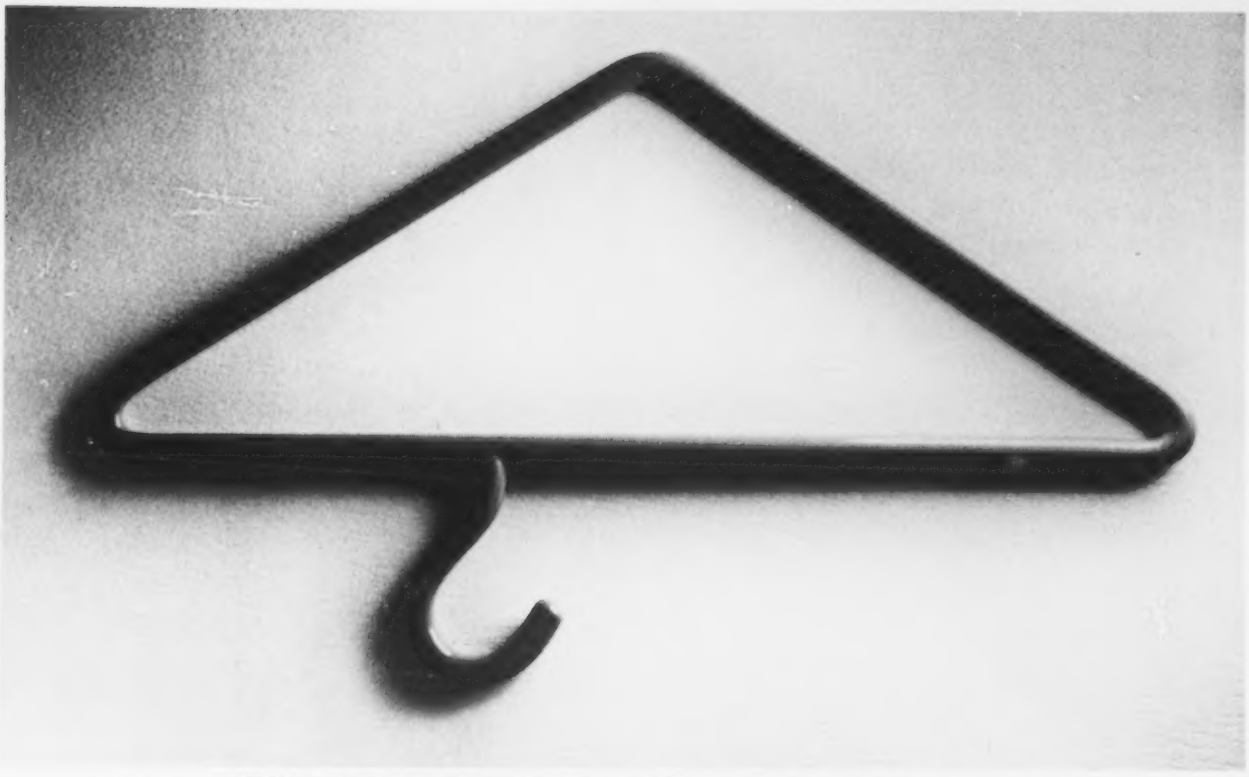

Hang up your coat and we'll talk about it.

HOW IMPORTANT IS THE AVAILABILITY OF A TRAINED WORKFORCE?

Just how important it is to locate your business in a state that has more to offer than pretty sunsets and lots of well-groomed golf courses.

Let's just choose a random example—Illinois.

Here you can take advantage of a workforce made up of over 6 million people who are educated, highly skilled and extremely productive.

Or perhaps we should say extremely profitable.

We should definitely say that recent findings from the Annual Survey of Manufacturers reveal that compared to the national average, Illinois businesses established a wage productivity advantage of $3.47 per hour, per person.

Enough about superior training. Let's talk about our superior re-training.

Just last year alone, the State invested over $25 million to upgrade the skills of thousands of workers in a variety of private industries.

But there are many other compelling reasons why an increasing number of businesses feel Illinois is central to their success. Like the fact that we're central to just about everything else.

Including the largest industrial and second largest consumer markets in the nation (60% of America's GNP can be found within 500 miles of our state borders). And a transportation network that features America's second largest railway system, over one thousand miles of navigable waterways, and one of the world's most accessible airports.

Add to all these benefits a comprehensive and fiercely competitive program specifically designed to put your business in a better state.

For details, call Rich Funderburk, Illinois Department of Commerce and Community Affairs (217-782-6861).

He'll fill you in on everything Illinois has to offer.

Including our pretty sunsets. And 597 well-groomed golf courses.

ILLINOIS

Illinois Department of Commerce and Community Affairs © 1989

ECONOMIC DEVELOPMENT

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Even if chemistry was not your favorite subject, Applied Chemistry can be easy. To Henkel it means using chemistry to meet the requirements, needs and wants of our customers. Our products and services are based on chemistry. We develop and market products and systems which benefit our customers. Customer and market orientation is the thrust of our efforts.

With over 35,000 employees and 160 affiliates, Henkel is represented in over 55 countries throughout the world. Within Henkel Corporation, Henkel's U.S. operating subsidiary, over 4000 employees work day after day to find the best solution for problems of our customers. They work in many areas: Personal Care, Textile, Paper, Plastics, Coatings, Graphic Arts, Metal Pretreatment, Food, Healthcare, Agriculture and many more.

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Specialist in Applied Chemistry

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Illinois—Offen fuer den Welthandel

Illinois—Doing Business with the World

James R. Thompson
Governor
State of Illinois

Illinois. It's the heart of America. It's a State where businesses grow and prosper, where international trade is welcomed and assisted through both governmental and private sector initiatives.

German firms have been among the first to discover Illinois' many advantages.

Today, more than 300 German companies are located throughout Illinois. The northern suburb of Hoffman Estates is the home of Siemens Gammasonics' $40-million worldwide headquarters and a research-and-development and manufacturing facility producing state-of-the-art equipment for use in the ever-changing field of nuclear medicine. At the southern tip of Illinois is Hella North America's automotive headlight manufacturing plant in Flora.

German companies know that an Illinois location offers them a step ahead in the world's marketplace.

Many factors contribute to Illinois' leadership. Our State's central location is a chief advantage. Nearly one-third of the United States' gross national product is produced within a 300-mile radius of Chicago. Two-thirds of all U.S. goods and services are produced within 500 miles of Illinois' borders.

A Sophisticated Infrastructure

Compounding the benefits of this central location is an excellent transportation network. Illinois ranks third in the entire United States in total interstate miles, with more than 1,700 miles of interstate highway criss-crossing our state. This network includes three coast-to-coast interstates, offering efficient transportation for both supplies and finished products.

No one can question Illinois' importance as a center of air transportation. More than 1,100 airports serve Illinois, with many offering commuter services connecting with

German business people...can take advantage of the three non-stop flights daily each way between Frankfurt and Chicago, as well as flights to other German cities.

flights available through O'Hare International Airport in Chicago, the world's busiest airport. O'Hare serves 50 million passengers each year with 31,000 international flights annually to countries and cities around the globe.

German business people, in particular, can take advantage of the three non-stop flights daily each way between Frankfurt and Chicago, as well as flights to other German cities.

Rail transportation is a must for many industries. Illinois is the only State served by major rail systems serving both the East and West Coasts. Chicago is the nation's

The Chicago skyline at dusk.

largest rail gateway; East St. Louis is also a major railhead. Add 23,000 trucking companies and 1,100 miles of navigable waterway and you can see that businesses in Illinois have an enviable array of transportation options at their doorstep.

Plentiful utility services are essential to many industries. Again, Illinois is a leader. Our State is served by four major electric utility companies and nine natural gas pipelines. Water is plentiful, and the State also has major reserves of both coal and oil.

Over the years, Illinois has worked diligently to address the needs of the business community, developing numerous programs designed to keep the costs of doing business affordable. Illinois has a flat-rate personal income tax and no tax on personal property. Manufacturing machinery and equipment is exempt from the sales tax. Enterprise zones, located in communities throughout the State, offer relaxed government regulations and tax incentives. And, through the Illinois Department of Commerce and Community Affairs, businesses may access confidential site selection services and innovative loan and training programs.

Illinois has long recognized the importance of education in maintaining our State's high level of prosperity. In addition to world-class universities—including the University of Illinois, the University of Chicago and Northwestern University—Illinois has 183 four-year colleges and universities, 50 community colleges, 31 vocational centers and 706 public high schools.

All of these factors are all-important to businesses as they make corporate location decisions.

But, more than anything else, it is Illinois' skilled workforce that keeps Illinois a leader in business. Surveys have shown that the productivity of Illinois' workers exceeds the United States' average by $4.38 per hour—an important consideration, whether a business is looking to produce quality goods at a competitive price, or purchasing quality supplies at the lowest price.

Attractive to U.S. and Foreign Business

Illinois' advantages are no secret to the world's business leaders. Forty-eight Fortune 500 companies are headquartered in Illinois; 295 other Fortune 500 companies have distribution operations in our State. Although Illinois is known as an agricultural leader, agriculture represents less than 2 percent of our State's gross product. Manufacturing dominates, representing nearly a fifth of the State's gross product. Wholesale and retail trade, finance/insurance/real estate and services make up the

balance. Illinois' 17,000 manufacturers lead the world in the production of non-electrical machinery, food processing, electrical equipment, fabricated metal products, autos and auto parts, containers and packages.

All told, Illinois' gross state product is over $241 billion—if taken in a world context, Illinois would have the fourteenth largest GNP in the world—larger even than Mexico.

For many years, Illinois has known that, with so many resources, it must reach out to the world and develop strong trading partnerships. In fact, more than a century ago, a young Illinois legislator said Illinois must trade with the world. That young man was Abraham Lincoln.

Lincoln would be proud of the strides his home State has taken in recent years to improve world trade. More than 20 years ago, Illinois became one of the first states to recognize the importance of European countries as trading partners. Since that time, our European office, located in Brussels, Belgium has helped hundreds of European companies interested in seeking Illinois locations, as well as Illinois companies looking to do business in Europe.

Today, Illinois has trade offices around the globe. In addition to the Brussels office, Illinois operates offices in Tokyo and Osaka, Japan; Hong Kong; Sao Paulo, Brazil; and Mexico City. Illinois was the first State to open a trade office in the People's Republic of China, with an office in Shenyang in the industrial province of Liaoning. We again made history when, in 1989, we opened the first state trade presence in Moscow. We continue to branch out, with plans for a ninth trade office to open in Toronto, Canada in 1990.

These trade offices, however, only begin to examine the many advantages Illinois offers to foreign businesses. Illinois has five foreign trade zones, located in all corners of the State: Peoria, Chicago, Lawrenceville, the Quad-Cities and Granite City. Seventy foreign banks have branches in Illinois, including five of Germany's largest banking institutions. Sixty-five foreign consulates are located in our State.

The German-American Chamber of Commerce for the Midwest is headquartered in Chicago, providing many services to assist German business people. Augmenting this are German-speaking lawyers, accountants and consultants, many of whom maintain offices in both Germany and Illinois, holding degrees from universities in both countries.

An aircraft lands at Chicago's Midway Airport.

The Fountain in Chicago's Grant Park.

A Powerful and Diverse Economy

It is obvious that Illinois offers many advantages to businesses choosing to locate within her boundaries. Equally important, Illinois is a friendly State—a State that is probably the most American of the United States.

Illinois is a large State, as the United States is a large country. We are 11.5 million people, more than 400 miles in length, located at the heart of America. We're an urban State, home to Chicago, with 3.5 million people (the greater Chicago metropolitan area is home to 6 million people.) We're an agricultural State, with 29 million acres of productive farmland. Our fertile prairies produce more grain than any other State and rank Illinois number two in the production of both corn and soybeans. We are the world's largest commodities trading marketplace, home to the Chicago Mercantile Exchange and the Chicago Board of Trade.

We are a high-technology State. Nearly 105,000 scientists and engineers call Illinois home. Our universities are leaders in the field of supercomputing. Important agricultural research is conducted at each State university. One of the world's finest schools of engineering is located at the University of Illinois. We are home to two national defense laboratories—Fermilab and the Argonne National Laboratory. Our universities and laboratories work closely with the business community to transfer new technologies into the commercial arena as quickly as possible.

Recently, Illinois has embarked upon an intensive campaign to attract foreign visitors to learn more about our State, its people and its many advantages. It often seems that foreigners have a good perception of America's coasts—New York and California—but lack a picture of the Midwest. Illinois truly mirrors the nation. World-class shopping, theatre and museums in Chicago. The Chicago Symphony Orchestra. Jazz. Festivals throughout the State that celebrate each community's unique heritage—apples, pumpkins, sweet corn. Architecture, from the Victorian splendor of Galena and Alton to the wonderful designs of Frank Lloyd Wright.

Many Germans have already discovered the advantages of Illinois. We stand ready to welcome many more. □

Ueberblick

Illinois - Offen fuer den Welthandel

Illinois ist das Herz der USA. Es ist ein Staat, wo Unternehmen wachsen und prosperieren koennen, wo internationaler Handel willkommen ist und durch private oeffentliche Initiativen unterstuetzt wird. Deutsche Firmen waren mit die ersten, die die vielen Vorteile von Illinois entdeckt haben; ueber 300 deutsche Unternehmen sind ueber ganz Illinois verteilt. Deutsche Unternehmen wissen, dass ein Standort in diesem Staat fuer sie einen Schritt vorwaerts im Weltmarkt bedeutet. Es gibt eine Reihe von Einflussfaktoren, die zu der Fuehrungsrolle beigetragen haben: von besonderem Vorteil ist die zentrale Lage; fast ein Drittel des Bruttosozialprodukts der USA wird innerhalb eines Radius von 300 Meilen um Chicago erarbeitet; zwei Drittel aller Waren und Dienstleistungen der USA werden in Illinois hergestellt. Die zentrale Lage wird durch ein exzellentes Transportnetz ergaenzt, das mit 2.700 Autobahnkilometern das drittgroesste der USA ist. Desgleichen ist Illinois ein wichtiger Luftknotenpunkt.

Es gibt ueber 1.100 Flughaefen im Land, darunter der O'Hare International Airport, mit 50 Millionen Passagieren und jaehrlich 31.000 internationalen Fluegen der geschaeftigste Flughafen der Welt.

Ausserdem hat Illinois ein gut ausgebautes Bildungssystem mit einer grossen Anzahl von Universitaeten, Colleges und Schulen. Besonders hervorzuheben ist die Produktivitaet der Facharbeiter, die wesentlich ueber dem Durchschnitt der gesamten USA liegt. Das Bruttosozialprodukt des Staates belaeuft sich insgesamt auf 241 Milliarden Dollar. Verglichen mit der ganzen Welt liegt es an vierzehnter Stelle und damit noch ueber dem Mexikos.

Obwohl Illinois eigentlich als fuehrend in der landwirtschaftlichen Produktion bekannt ist, werden nur 2% des Bruttosozialprodukts dieses Staates in der Landwirtschaft erwirtschaftet. Das produzierende Gewerbe (rund ein Fuenftel des staatlichen Bruttosozialprodukts) ist mit 17.000 Herstellern weltweit fuehrend in der Produktion von Maschinen und mechanischen Geraeten, Nahrungsmitteln, elektrischen Ausruestungsgegenstaenden, verarbeiteten Metallprodukten sowie in der Automobil- und Verpackungsindustrie. Der Gross- und Einzelhandel, das Finanz- und Versicherungswesen, der Immobilienhandel sowie der Dienstleistungsbereich sind die wichtigsten anderen Bilanzsektoren. Von den 500 groessten Unternehmen der USA haben 48 ihren Hauptsitz in Illinois.

Insgesamt ist Illinois ein Staat, der deutschen Firmen viele Standortvorteile und Geschaeftsmoeglichkeiten auf dem landwirtschaftlichen, technischen und produzierenden Sektor bietet. □

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Rheinland-Pfalz—Attraktiver Standort fuer auslaendische Investoren

Rheinland-Pfalz: Attractive Location for Foreign Investors

Rainer Bruederle
Minister of Economics and Transport
Rheinland-Pfalz

Viewed at the state level, Rheinland-Pfalz can only be described as one of the most dynamic economic regions in the Federal Republic of Germany today: gauged by most important statistical indices, Rheinland-Pfalz has achieved one of West Germany's strongest growth rates.

With a population of 3.6 million that occupies an area of 7,656 square miles, Rheinland-Pfalz increased its gross domestic product from 1970 to 1988 by over 50 percent. On a per capita basis, GDP soared from DM 40,000 per employee in 1970 to DM 62,365 in 1988.

Once a relatively quiet backwater, the state's current level of success can be attributed to a number of factors.

From Borderland to Heartland

With the creation of the European Community in 1959 and its subsequent emergence as a major economic force, Rheinland-Pfalz has been transformed from a small state on the western border of the Federal Republic to a central economic region in the heart of industrial Europe, as well as a major transit platform for cross-border traffic. Within West Germany, key population and industrial centers in the Ruhr and on the Rivers Rhine and Main, the Saarland and Luxembourg are, for all practical purposes, on the threshold. Over 40 million consumers live within a radius of only 65 miles.

An up-to-date network of superhighways serves to connect important cities like Mainz, Ludwigshafen, Kaiserslautern, Trier, and Koblenz; it also ties the entire region to the nearby population and industrial centers of neighboring European countries.

Efficient rail and highway links provide swift transportation to the Continent's major airport, Rhein-Main in Frankfurt, not to mention other important airports in adjacent regions, e.g., Cologne/Bonn, Saarbrucken, and Luxembourg.

Western Europe's longest river, the Rhine, and its branch the Mosel, provide direct, efficient transfer facilities via its river ports to Switzerland and France, as well as

With the creation of the European Community in 1959,...Rheinland-Pfalz has been transformed from a small state...to a central economic region in the heart of industrial Europe...

to the major seaports of Rotterdam and Antwerp. Not least of all, there is also a sophisticated rail network that connects into Europe's most important north-south rail route that runs along the west bank of the Rhine.

The state of Rheinland-Pfalz has created a dependable economic environment through the application of consistent government policies that are firmly anchored to the

principles of the free market.

Rheinland-Pfalz: Open to the World

The conspicuous competitiveness and international orientation of its economy are reflected in the approximately 38 percent share of its manufactures that are exported, the highest share of any state in the Federal Republic.

And let it be noted that this impressive performance is not attributable solely to large companies. On the contrary, it is largely the sum total of the achievements of the large number of medium-sized companies in Rheinland-Pfalz, whose flexibility and dynamism represent an impressive engine of economic growth.

The largest market for the state's exports are the nations of the European Community, above all, France. In a sense, then, the huge single European market that will be created after 1992 is already a business realty for Rheinland-Pfalz.

A Strong Educational and Research Infrastructure

Another major reason for the continuing expansion of the economy is the fact that the superb educational system provides a steady stream of skilled graduates into the work force. Their skills and enthusiasm alone guarantee a high level of productivity. Not to mention that strikes are virtually unknown.

In Rheinland-Pfalz, two-thirds of the people in the labor market have completed a formal vocational training program. Behind this remarkable statistic stands a clear strategy: the state government supports first-class education in order to maintain the quality of its work force at the highest level.

The state's institutions of higher learning strongly emphasize the practical applications of knowledge and technology, a major reason why their graduates are in such high demand. Among others, there is the venerable University of Mainz with a broad curriculum in the natural sciences and liberal arts, as well as the newer universities in Kaiserslautern—with a distinctly technical orientation—and at Trier, which emphasizes the humanities and the social sciences. In addition, there is the state-sponsored vocational academy, whose seven autonomous departments provide Rheinland-Pfalz's economy with graduates possessing an extraordinarily high standard of business and industrial skills.

Daimler-Benz truck assembly plant in Woerth. The factory employs over 13,000 and produces 85,000 trucks a year.

The largest market for the state's exports are the nations of the European Community, above all, France.

Not to be forgotten either is the private university in Koblenz, the only one of its kind in the Federal Republic, that provides its students with a course of study analogous to the American MBA. In all, there were around 60,000 students registered in the state's universities and other institutions of higher learning in 1987, three times the number at the beginning of the 1970's.

But higher learning doesn't stop at the instructional level. The two Max Planck Institutes for Chemistry and Polymers located in Rheinland-Pfalz support advanced research in these fields, and the German Research Center for Artificial Intelligence is located in Kaiserslautern.

Chemistry, biotechnology, electronics, mechanical engineering, data processing, and physics are the leading technological disciplines promoted in Rheinland-Pfalz, providing opportunities and partners for all types of ventures in the technologies of the future.

Big Business in Rheinland-Pfalz

A number of German multinational companies, as well as some from abroad, have built manufacturing operations here over the years, attracted by the first-rate economic infrastructure, the attractive climate for investment, its central location in Europe, the highly skilled labor force, and applications-oriented research facilities.

The largest industrial employer is chemical giant BASF, which employs 54,000 people at its headquarters in Ludwigshafen, one-third of its worldwide work force.

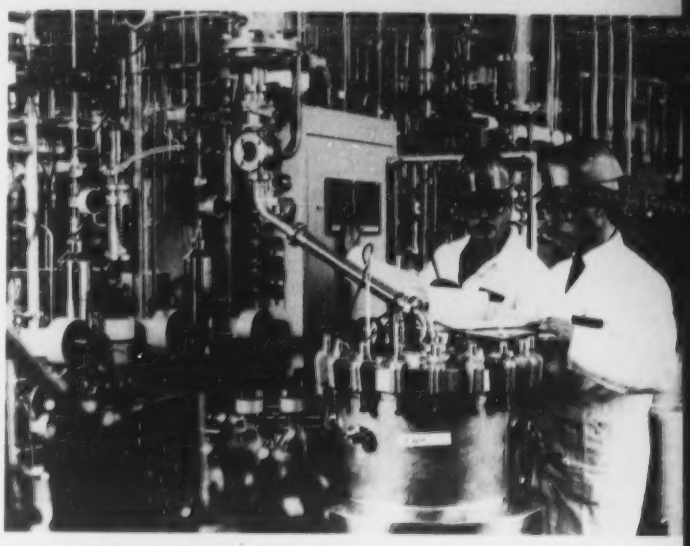
After chemicals and pharmaceuticals, the automotive industry represents the state's second strongest industrial pillar, composed both of primary producers and medium-sized components manufacturers. Daimler-Benz is the largest employer in the group. Each year, 85,000 trucks leave its large factory in Woerth that employs over 13,000 men and women. In the near future, a plant in Germersheim will produce replacement parts for Mercedes-Benz vehicles around the world. In Kaiserslautern, General Motors subsidiary Opel produces drive trains for passenger cars manufactured in other GM plants throughout Europe.

IBM's plant in Mainz produces highly sophisticated components for its computers, but is increasingly turning to the development of software. IBM also demonstrates

the synergistic effect that a successful, innovative company can exercise on the local economy. Its presence has encouraged small technology firms to set up business in the immediate area, originally to serve the computer giant itself but increasingly other, more distant customers.

But the government is no less interested in small and medium-sized companies, whose creativity and flexibility so often are responsible for bringing new products and technologies to market: medium-sized firms account for 60 percent of Rheinland-Pfalz's gross domestic product, providing a substantial contribution to the region's economic growth and stability.

The dynamic potential of such firms is encouraged and supported by government programs throughout the state. The government is particularly interested in catalyzing the founding of new high-technology companies. The areas around Kaiserslautern, Trier, and Mainz have received special support on the assumption that the technology centers associated with the engineering schools in these cities will enable these young and innovative firms to become self-sustaining more quickly. In the coming years, these centers will be expanded to other cities.



A BASF biotechnology plant. BASF is Rheinland-Pfalz's largest industrial employer.

Foreign Business Discovers Rheinland-Pfalz

Rheinland-Pfalz welcomes foreign investment for the stimulus it provides to economic growth and employment. The results to date have been more than satisfactory, with aggregate foreign direct investment amounting to somewhere between DM 2.5 and DM 3 billion.

A few notable examples serve to round out the picture. The establishment of Goldstar Europe GmbH in Worms in November 1987 represented the first Korean manufacturing plant in Central Europe. When it is fully completed, it will produce 300,000 color television sets a year and employ 500 workers. The Japanese firms Kubota, a leading manufacturer of compact dredges, has a plant in Zweibruecken, and TDK, also from Japan, turns out electronic components in Rammelsbach-Kusel.

One example of the region's attractiveness to automobile industry suppliers is furnished by America's Corning Glass Works, which opened a plant on November 21, 1986 in Kaiserslautern for the production of ceramic parts used in automobile pollution control equipment. Output from the plant will be supplied to automobile manufacturers throughout Europe, and has created 280 jobs up to this writing.

Rheinland-Pfalz offers the foreign business investor...a central location...and a supportive, entrepreneurial government...

Said Corning's president, Roger G. Akerman, at the dedication of the plant: "Corning decided to site this factory in Kaiserslautern because it afforded rapid, central access to the European automobile industry. The city of Kaiserslautern was particularly helpful in preparing the site on time for the beginning of construction. Moreover, we consider the university here a valuable source of technology development and application."

Corning's experience is no exception. It is an article of faith throughout Rheinland-Pfalz that the competent offices and civil servants throughout the region will provide energetic support in paving the way for fixed investment, and always with the support of the central government in Mainz. The Rheinland-Pfalz Corporation for Economic Development and even our State Ministry of Economics and Transport are always available with information and substantive assistance for foreign companies interested in direct investment.

Quality of Life

Even a brief stay in Rheinland-Pfalz is enough to demonstrate that ours is a region in which hard work goes hand in hand with good living. The large number of castles, fortresses, cathedrals, and medieval towns are monuments in stone to a splendid two-thousand year history that has inevitably left its mark on the people of the region.

One notable dimension of our life style was originally imported by the ancient Romans: viticulture, the raising of high quality grapes for wine. Today's vintners in the Rheinland-Pfalz account for 70 percent of the Federal Republic's annual wine production. Needless to say, the people of Rheinland-Pfalz know how to enjoy the fruits of their labor and have incorporated it into their culture and life style. No question, wine and its attendant pleasures have contributed mightily to the natural proclivity of our people to celebrate life with gusto and hospitality, a quality that has always fascinated and attracted our foreign guests.

To sum up, then, Rheinland-Pfalz offers the foreign business investor dual attractions: a central location in today's European market, with a sophisticated infrastructure and a supportive, entrepreneurial government; and a high quality of life that has few counterparts in Europe. ❑

Ueberblick

Rheinland-Pfalz—Attraktiver Standort fuer auslaendische Investoren

Rheinland-Pfalz nimmt heute gemessen am Wirtschaftswachstum eine Spitzenstellung unter den Bundeslaendern der Bundesrepublik Deutschland ein. Dies ist ein Anhaltspunkt fuer die ueberdurchschnittliche Dynamik und Aufwaertsentwicklung des Landes, auf dessen Flaeche von fast 20.000 qkm 3,6 Millionen Einwohner und 1,6 Millionen Beschaeftigte leben. Das reale Bruttoinlandsprodukt hat in Rheinland-Pfalz von 1970 bis 1988 erheblich zugenommen. Im Land stieg es um 50%. Die ausgepraegte Wettbewerbsfaehigkeit und internationale Offenheit der rheinland-pfaelzischen Wirtschaft wird durch eine Exportquote bewiesen, die mit rd. 38% die hoechste unter allen Bundeslaendern ist. Getragen wird diese positive Entwicklung keineswegs nur von der Grossindustrie. Entscheidende Impulse gehen vor allem von der stark vertretenen mittelstaendischen Wirtschaft aus, die sich durch ihre Flexibilitaet und Dynamik zu einem Wachstumsmotor entwickelt hat.

Ein weiterer entscheidender Grund fuer den anhaltenden wirtschaftlichen Aufwaertstrend in Rheinland-Pfalz ist, dass dank eines vorbildlichen Ausbildungssystems qualifizierte Arbeitskraefte zur Verfuegung stehen. Durch ihre Zuverlaessigkeit und Leistungsbereitschaft ist eine hohe Produktivitaet garantiert. Streiks sind so gut wie unbekannt. Die Ansiedlung renommierter auslaendischer Unternehmen in Rheinland-Pfalz bewirkt weitere wichtige Wirtschaftsimpulse. Die auslaendischen Direktinvestitionen aus aller Welt belaufen sich auf 2,5 bis 3 Mrd. DM.

Wer Rheinland-Pfalz besucht wird schnell erkennen, dass das Bundesland nicht nur ein Land ist, in dem man hart arbeitet, sondern dass Rheinland-Pfalz auch ein Land ist, in dem man gut leben kann. Die grosse Zahl der Burgen, Schloesser, Dome und mittelalterlichen Staedte sind steinerne Zeugen einer grossen zweitausendjaehrigen Vergangenheit, die auch die Menschen gepraegt hat. Fuer Rheinland-Pfalz spricht neben seiner Attraktivitaet als Wirtschaftsstandort auch die hohe Lebensqualitaet dieses schoenen Landes. □

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1889 – 1989

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1889.

The industrial revolution is at its peak. The 1,056 foot-high Eiffel Tower is completed for the Paris World Exhibition. The opening of the Oklahoma Indian Territory, the last great land rush, takes place.

And an important entrepreneurial idea is born: six months after the death of Carl Zeiss, Ernst Abbe—scientist, businessman and social reformer—establishes the Carl-Zeiss-Stiftung (Foundation) as the sole owner of the Schott Glassworks and Carl Zeiss companies.

The charter of Abbe's foundation, still valid today, is an important document in Germany's economic and social history. The charter ensures that no outsiders would be in a position to influence the progressive goals of the Schott and Zeiss companies. The foundation belongs to itself, so to speak. Profits are to be used to promote the economic growth of the foundation companies, for employee benefits, and for general support of scientific and cultural activities.

The Abbe concept includes a consistently high investment in internal research and development, and the manufacture of products at the highest technical level. And it brought social benefits to the workforce which could justly be labeled as revolutionary for their time.

Critics of the period did not give this concept much chance of success. Today, the Schott and Zeiss companies are among the most respected companies in the world. There are 120 different companies worldwide, with 32,000 employees and sales of over two billion dollars.

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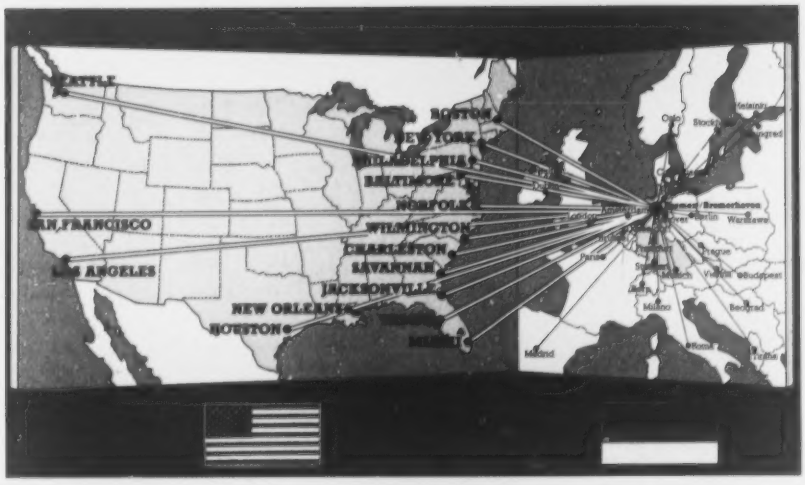

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AEG has over 90,000 employees with annual sales of $7 billion worldwide. Research & Development alone employs almost 7,000 people. AEG increased its R & D expenditures in 1988 to $500 million to further its technological expertise.

Manufacturing facilities in 40 West German cities and 12 other countries provide modern technical products which AEG markets internationally with success.

Recently AEG has expanded its U.S. presence and today it has several American subsidiaries. The U.S. headquarters is AEG Corporation in Somerville, New Jersey. AEG Olympia, also in Somerville, New Jersey, provides office, information and communication systems to the U.S. market. AEG Power Tool Corporation in New London, Connecticut supplies high quality power tools for industrial users and contractors. MODCOMP, located in Ft. Lauderdale, Florida, is a leading supplier of real-time computer systems, products and services. PROMOD, in Lake Forest, California, is AEG's high-tech software company specializing in the field of computer-aided software engineering and programming. AEG recently acquired MODICON and Modicon Motion (formerly the Industrial Automation Systems Group of Gould), industrial automation specialists, headquartered in North Andover, Massachusetts. MODICON complements AEG's strength in industrial systems. Another recent undertaking is the joint venture between the transportation divisions of AEG and Westinghouse Electric Corporation, which also includes the Los Angeles-based Magnetic Transit of America (MTA). The new joint venture company is AEG Westinghouse Transportation Systems, and it will provide, among others, rubber-tired and magnetic levitation technologies, automatic train controls and automated people-mover systems. In addition AEG's sales activities in the U.S. include, among others, traveling wave tubes, components and power semiconductors.

For more information on AEG, please write to: Diane Zediker, Corporate Communications, AEG Corporation, 3140 Route 22, Somerville, New Jersey 08876-1269 or call at 1-201-231-8405. □

AMK Berlin

AMK BERLIN COMPANY for Exhibitions, Fairs and Congresses is a Berlin-based service company engaged in the organisation and implementation of national and international trade fairs, exhibitions and congresses, as well as sporting events, popular entertainment and cultural events. The work carried out by AMK Berlin helps to promote contacts in business and science, and focuses international attention on the city.

AMK Berlin operates on behalf of the Land Berlin:

- Exhibition Grounds and Radio Tower (Funkturm)
- International Congress Center Berlin (ICC Berlin)
- Deutschlandhalle auditorium
- Eissporthalle auditorium
- Film Fair Center

The structure of AMK Berlin reflects the company's various projects. There are three Corporate Divisions dealing with *Trade Fairs and Exhibitions*, *Congresses* and *Sport and Entertainment*.

AMK Berlin maintains a network of representatives in 38 countries on all five continents. It is legally constituted as a limited liability company under German law. Its partners are the Land Berlin, The Berlin Chamber of Industry and Commerce and others.

Berlin is the venue for a number of leading international trade fairs, exhibitions and congresses, many of them in the form of combined trade fairs and congresses. The main international events are:

- International Green Week Berlin (agricultural show)
- International Tourism Exchange ITB Berlin
- International Audio and Video Fair Berlin
- Overseas Import Fair *Partner for Progress*
- WASSER Berlin (Congress and International Fair Water Supply)
- SURTEC Berlin (surface technology)
- AAA Motor Show Berlin
- ShowTech Berlin (Fair and Congress Entertainment Technology, Stage Engineering, Equipment, Management)
- Reinigungs-Technik Berlin (Fair and Congress for the Building Cleaning Trade).

Moreover AMK Berlin has been responsible for the official participation by the Federal Republic of Germany in trade fairs around the world.

Since it was opened on April 2, 1979, the International Congress Center Berlin (ICC Berlin) has been acclaimed one of the biggest, most modern and most successful congress centres in the world.

With its 80 halls and rooms offering accommodation for between 20 and 5,000 people, its multifunctional facilities and its modern technology, the centre is ideally suited to house any type of conference, meeting or entertainment. Special exhibitions, poster sessions or company presentation displays can be arranged on the generously dimensioned foyer levels. And the ICC Berlin is directly connected to the Berlin Exhibition Grounds by a three-storey bridge construction, providing an ideal link for events combining the exhibition with a conference or congress.

AMK Berlin Gastronomie (AGG), under the management of Kempinski Congress GmbH is a subsidiary company that maintains a comprehensive range of catering services during the various events. □

ALLIED-SIGNAL AEROSPACE COMPANY is one of the world's largest suppliers of advanced technology, products and services for aviation and space applications. Its products range from tiny sensors and circuits to powerful engines.

Allied-Signal Aerospace Company owns a heritage that extends to the pioneering days of powered flight. Its divisions carry trade names like Bendix, Garrett, and AiResearch: businesses which have supplied engines, avionics and other components essential to nearly every type of aircraft and spacecraft in the free world.

But this company has more than a storied past; it also has an exciting future. Its divisions are preparing the way for man's continued utilization of the aerospace environment.

For example, AiResearch Group's **AiResearch Tucson Division** is a leading producer of electronic engine controls and manufactures diagnostic equipment and electronic controllers for aircraft actuation systems. **Bendix Avelex,** one of Canada's key aerospace manufacturers, is continuing development and production of thermal imagers and night vision goggles. **Electrodynamics Division's** state-of-the-art technology includes fly-by-light actuators for the *Light-Hawk* helicopter.

Avionics Group's **Communication Division** is in the forefront of high-tech air traffic control systems and is a leading supplier of communications security (COMSEC) equipment to the National Security Agency. And, **Bendix/King** avionics systems and technologies set industry standards; particularly in the new-technology TCAS (Traffic Alert Collision Avoidance Systems).

Garrett Auxiliary Power and **Garrett Engine** divisions dominate their markets. Garrett provides APU's for more than 90% of the major commercial airliners in the free world and Garrett's TFE731 is the world's preeminent business aircraft turbofan engine family with more than 6,000 units now in service.

Bendix Engine Controls and **Bendix Wheels & Brakes** divisions are equally as dominant. The Bendix engine control system for the Pratt & Whitney F100 is one of the most advanced available and is used on the USAF F-15 and F-16. And, virtually every airline in the Western world uses Bendix landing system components known for quality engineering and manufacture.

Services Group's **Garrett Processing Division** is involved in extensive research into the development and use of next-generation ceramic materials. **Bendix Field Engineering Corporation** provides support for every major U.S. space endeavor and operates and maintains the Washington/Moscow Hotline.

Allied-Signal Aerospace Company is all of these and more. Around the world, countless aircraft, aircrews and passengers rely on the skills, expertise and professionalism of the more than 50,000 people who call Allied-Signal Aerospace *their* company.

Allied-Signal Aerospace Company is a unit of Allied Signal, Inc., an advanced technology company with businesses in aerospace, automotive products and engineered materials. □

The ARTHUR ANDERSEN WORLDWIDE ORGANIZATION is one of the largest international financial-services organizations, providing a full range of professional services in accounting and auditing, tax compliance and planning, and management information consulting through 226 offices, including five in principal cities in Germany.

Since its founding in 1913, Arthur Andersen's guiding principle has been the assurance that all partners have a similar interest in serving the firm's clients everywhere in the world. In keeping with this tradition, the firm created in 1978 a Societe Cooperative in Geneva, Switzerland to coordinate worldwide services. This Societe Cooperative, which is controlled by all partners in the national practice entities throughout the world, facilitates consistently high-quality client service.

Accounting and Audit—Arthur Andersen has always taken a business approach to its audit assignments and accounting services. All professional personnel are first trained to develop an understanding of the client's business and operating objectives. Recommendations regarding management systems are developed within this framework. Using this business approach, the organization renders specialized assistance in the accounting and financial aspects of seeking and evaluating potential acquisitions, locating plants and other facilities, and other contractual relationships.

Tax Services—Arthur Andersen's tax practice is supported by the world's largest nongovernmental body of full-time tax professionals. Tax personnel in each office are totally familiar with local tax matters as well as important concepts of international tax planning and the intricacies of international tax treaties. Through communications networks and worldwide research capabilities, the firm offers fully integrated tax advice on such matters as organization structure, cross-border trading, trans-national acquisitions and mergers. The tax practice also assists expatriates in their individual tax planning and compliance.

Andersen Consulting—For more than 35 years Andersen Consulting has helped clients meet their business information needs. The practice has grown into the largest international consulting organization of its kind, with more than 14,000 professionals in 49 counties. Andersen Consulting professionals plan, design, and install information systems and conduct analytical studies that assist information executives with their financial, marketing, information processing and other operations. □

AUDI OF AMERICA, INC. imports and markets advance-design vehicles manufactured by Audi AG of Ingolstadt, West Germany. Audi of America is located in Troy, Michigan, with four regional offices serving multi-state areas. In addition, independent distributors are located near New York City and St. Louis, Missouri.

Audi of America, Inc. began formal operations on September 1, 1985, and includes what had been Volkswagen of America's Audi Division. The functional areas with Audi of America include sales, advertising, merchandising, public relations and motorsports.

Audi entered the U.S. market in 1969 and in the first full model year of 1970, Audi sold just under 7,700 cars through 138 dealers. Today, some 360 dealers market Audi products throughout the United States.

Audi AG, the manufacturer of Audi automobiles, is headquartered in Ingolstadt, West Germany in the state of Bavaria, just north of the city of Munich. The other principal factory is located in Neckarsulm, not far from Stuttgart. Among the world's automobile manufacturers, Audi is known for its product innovation, particularly in aerodynamic design and the advancement of all-wheel drive vehicles. Audi AG is headed by Dr. Ferdinand Piech, chairman of the Board of Management.

Audi AG traces its history back to the early portion of this century when in 1909 August

Horch left the automobile company he founded under his own name and began a new firm called *Audi*—the Latin translation of Horch's name.

The first Audi vehicle designed by Horch was a sports car—it won its first race in Sweden, just three months after introduction. Since that time, Audi has continued to demonstrate its superior performance in the motor sports arena.

In 1986, Audi of America clinched the U.S. Sports Car Club of America PRO-Rally Manufacturer's Championship. The Audi Sport Quattro S-1 triumphed in its class four years running, from 1984-1987, in Colorado's famed Pikes Peak Hill Climb, achieving record speed and Overall Championships in 1986 and 1987.

Audi dominated the 1988 SCCA Trans-Am racing circuit with a production-based Audi 200 Quattro, and captured both Manufacturer and Driver championships. The company entered the IMSA-GTO class this year, and, running only part of the season, finished second in Manufacturer and Driver championship points.

Audi is at the forefront in automotive innovation, being a technological leader in all-wheel drive with Audi's unique Quattro system, in aerodynamic styling, and in the use of anti-lock braking systems.

SALES HISTORY:

	SALES	OPERATING DEALERS
1970	7,691	138
1971	20,604	200
1972	28,631	255
1973	46,136	288
1974	50,446	386
1975	50,680	424
1976	33,316	425
1977	35,849	432
1978	40,882	436
1979	42,709	439
1980	42,483	433
1981	50,817	430
1982	45,954	421
1983	47,934	413
1984	71,206	408
1985	74,061	408
1986	59,797	412
1987	41,322	409
1988	22,943	390 □

BASF

BASF CORPORATION is one of the ten largest chemical companies in North America. With over $5 billion in sales, it accounts for about 20% of the BASF Group's worldwide business.

BASF has been serving the North American market for more than a century. Initially, the company built its business on imports from Germany. Today, 90 percent of its sales on this continent consist of products "Made in North America".

The company began to transfer its technology in the mid-50's. As a first major step, it joined the Dow Chemical Company in the manufacture of fiber intermediates. Ultimately, the joint venture expanded into man-made fibers.

In 1969, the chemical production base in North America was broadened with the acquisition of Wyandotte Chemicals Corporation. This was followed by the purchase of Dow's share of Dow Badische, Chemetron

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(pigments), GAF's dyestuff operations in Rensselaer, New York, and Fritzsche Dodge & Olcott. Concurrently, BASF capitalized on its know-how in building numerous plants in the United States.

In 1985, the company reinforced its position on the leading edge of chemical technology with the purchase of Celanese's advanced composite materials business. In addition, it strengthened its presence in coatings and printing inks with the acquisition of Inmont. With the purchase of American Enka, BASF became a major fiber manufacturer in North America.

As BASF continued to grow on this continent, the company's businesses evolved into 12 different, variously-named, corporate entities with 21,000 employees at many sites, including 70 major production and administrative bases.

To integrate and consolidate these operations, BASF moved at the close of 1985 to put its organization in North America under one umbrella, known as BASF Corporation. The Corporation today includes all BASF operations in North America as well as Wintershall's U.S. oil and gas exploration and production, and an indirectly held interest in a potash mine in New Brunswick, Canada.

As a result of a recent restructuring, BASF Corporation operating responsibilities for North America have been distributed among five executive vice presidents who are also managing directors of the BASF Group.

The five new divisions, which have been established to best serve their markets, include Chemicals, Coatings & Colorants, Consumer Products & Life Science, Fibers, and Polymers.

The Chemicals Division produces and sells, in general, commodity and specialty chemicals to other manufacturers. The Division's business areas cover chemical intermediates, industrial organics, basic raw materials and fiber raw materials.

The Coatings and Colorants Division serves a range of markets from automotive and container coatings to graphic systems, as well as industries that use color, such as paper and textiles.

The Consumer Products & Life Science Division markets BASF's agricultural chemicals, audio and videotapes, antifreeze, animal nutrition and human health products, plus flavors, fragrances and pharmaceuticals.

The Fibers Division provides textile and carpet fibers as well as industrial fibers to a wide range of end use markets. Within this division are dispersions and textile chemicals which complement these markets and a host of others.

The Polymers Division, comprised of urethanes, plastic materials and foams, and structural materials, serves such industries as automotive, packaging, aerospace, construction, housing and appliances. □

BDO SEIDMAN

BDO is a leading international accounting organization offering clients professional auditing, taxation, and financial and management advisory services, nationally and abroad.

BDO is one of the oldest European-based international accounting firms. It has more than 400 offices in 61 countries and over 15,000 partners and staff. BDO was founded as a European partnership which was organized, and has grown, in response to the harmonization of trade regulations directed by the EEC.

Our German partner firm, BDO Deutsche Warentreuhand-Aktiengesellschaft (DWT), is among the largest firms in Germany, with offices in Berlin, Bonn, Bremen, Cologne, Duesseldorf, Essen, Flensburg, Frankfurt/Main, Freiburg, Hamburg, Hannover, Kiel, Luebeck, Munich, Stuttgart and Wiesbaden.

In the United States, German clients are served by BDO SEIDMAN, founded in 1910, now with offices in 43 cities. At BDO Seidman, work for German clients is handled by resident Wirtschaftpruefer and Steuerberater. BDO is presently serving a substantial number of U.S. subsidiaries of German parent companies. Bilingual professionals are fully informed about complex and changing American accounting and tax regulations, and thoroughly familiar with German auditing, accounting and reporting requirements. They have expertise in all major industrial and financial fields.

Along with expertise on the technical aspects of finance and taxation, we understand the environmental, economic, marketing and cultural differences between the U.S. and Germany. This knowledge enables us to assist our German clients with mergers, acquisitions and start-ups in the U.S.

BDO Seidman's international services group is headed by Paul E. Neubelt, partner, headquartered in New York. Gunther Strothe in New York and Peter Thiessen in Boston are responsible for services to the German business community.

The key to our service is the quality of our professionals, who combine international scope and experience with a thorough knowledge of local accounting and business. Close working relationships between our U.S. and German partners guarantees prompt, attentive, personalized service on both sides of the Atlantic. Our partners are highly regarded in the business community. They can provide the invaluable link to business, financial and legal contacts in the U.S. They have successfully helped many multinational corporations establish new enterprises in the U.S. and provide start-up, international tax structuring, advice and compliance with new consolidation requirements in Germany and Europe. They also assist German companies seeking to have their shares listed on one of the U.S. stock exchanges using American Depository Receipts.

Call us for more information about how BDO can help make your business in the U.S. a success. In New York contact: Paul E. Neubelt, CPA, Gunther Strothe, WP/StB, CPA at: BDO Seidman, 15 Columbus Circle, New York, NY 10023, (212) 765-7500, Telex: 661-903, FAX: (212) 315-1613; or Dr. Peter Thiessen, WP/StB in Boston at: BDO Seidman, One Financial Center, 13th Floor, Boston, MA 02111, (617) 348-3500, TWX 910 240-0457, FAX (617) 348-3535. □

BHF-BANK

While the story of BHF-BANK dates back to the middle of the last century, its present status results from a merger between Berliner Handels-Gesellschaft and Frankfurter Bank in 1970. As a limited company the Bank is owned by approximately 20,000 shareholders and is directed by its personally liable managing partners. It is a merchant and commercial bank and issuing house, is involved in portfolio management and securities business, and has been active in international finance for more than a hundred years. The Bank with total assets of more than 36 billion DM and own resources of 1.5 billion DM, thus combines the advantages of a company that has access to the capital market, with all the flexibility of a private bank.

Headquartered in Frankfurt, Germany's financial center, BHF-Bank serves a broad and diversified clientele: industrial companies, multinational corporations, government agencies, public entities, international organizations, and institutional investors as well as private customers.

Through its foreign branches and subsidiaries in New York and Grand Cayman, as well

as in London, Luxembourg, Singapore, Tokyo and Zurich and its representative offices in New York, Los Angeles and in further major financial centers, BHF-BANK is well positioned to provide its clients with individually packaged financing wherever the need arises.

International M & A business is carried out by the expert staff of Frankfurt Consult GmbH and their counterparts in New York, London and Tokyo. □

BfG:Bank

Established in 1958 with head offices in Frankfurt, BfG operates as a commercial bank, offering its customers a complete range of "universal" banking services. With consolidated assets of DM 64.3 billion at the end of 1988, the BfG group ranks among the largest private German banks. It has a staff of 8,154 and maintains a network of about 250 offices throughout the Federal Republic of Germany and West Berlin.

In recent years, BfG has also expanded its international banking activities, supported by its subsidiary BfG:Luxembourg, branches in Hong Kong, London, New York and Cayman Islands as well as associated banks in Amsterdam and Basel. A representative office is also maintained in Moscow.

At the beginning of 1987 Aachener und Muenchener Beteiligungs-Aktiengesellschaft (AMB) acquired 50 percent plus one share of the BfG's share capital. The bank has thus gained a new partner able to offer a large number of interesting possibilities for cooperation. In the years ahead, we intend to fully utilize this potential for the benefit of both companies. The rest of the shares are owned by Beteiligungsgesellschaft fuer Gemeinwirtschaft AG (BGAG). □

BV CAPITAL

BV CAPITAL is the New York based investment banking and asset management arm of Bayerische Vereinsbank AG, one of Germany's five largest banks. As such, BV Capital offers its clients comprehensive, international service and access to the global resources of one of the largest Aaa-rated banking groups in the world.

Since 1978, BV Capital has met the investment banking and corporate finance needs of several hundred U.S. and foreign clients. During the same period, assets under management have grown to nearly $1 billion.

As specialists in corporate advisory work, BV Capital offers a full range of corporate development, finance and capital formation services. As investment managers, BV Capital provides innovative asset management services to institutional and private clients, with an emphasis on maximum risk adjusted return and tax effectiveness. □

Free State of Bavaria

BAVARIA—The Quality Edge in the New Europe.

The Federal Republic of Germany is made up of eleven states, the largest of which is the Free State of Bavaria. With more than 27,000 square miles, Bavaria makes up the major southeast portion of West Germany. Its popu-

STEUERBERATUNG UND WIRTSCHAFTSPRÜFUNG IST UNSER GESCHÄFT

BDO Seidman is an international accounting firm serving German companies and individuals with business interests in the United States. Work for our German clients is under the direction of resident Wirtschaftsprufer and Steuerberater. Our experienced partners can work with you in both countries providing the important link you need to business, financial and legal contracts in the U.S.

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lation of about 11 million puts Bavaria a million ahead of Belgium, and three million more than Ireland.

Everyone knows Bavaria as a favored vacation destination and there's no denying our reputation for fine beer, food and culture. But Bavaria has many other reasons to be proud, and chief among them are our achievements in industry, especially in the areas of electronics, aerospace, technical ceramics and other high technology pursuits as well as motor vehicles.

There is a rich scientific tradition in Bavaria, embracing such giants as Max Planck, Conrad Wilhelm Roentgen, Rudolf Diesel, and Carl von Linde. This long-running acquaintance with technological inquiry is fostered today by a network of ten universities, ten technical colleges, a great number of vocational schools and the Max Planck-Gesellschaft whose general administration is headquartered in Bavaria and which has 13 institutes and independent research groups in the state.

International companies, big and small, recognize and appreciate the stable workforce in Bavaria. The product of an educational system committed to scientific training and preparation, the Bavarian worker outperforms and out-produces in many respects his or her northern German counterpart. Bavaria has consistently been among the leaders of all German states in employment and industrial growth. The incidence of strikes is very low.

The electrical and electronics industry with 245,000 employees, ranks first in Bavaria, even ahead of the machine-building and motor vehicle construction sectors.

Every fourth job in the electrical industry in Germany is in Bavaria; and in direct proportion to this, Bavaria's share of total exports in the field of electrotechnical products in the Federal Republic is 23%. Its share of the output in the electrotechnical industry in the Federal Republic amounts to nearly 30%.

The motor that keeps this dynamic process in motion is the micro-electronics sector which cuts across all sectors of industrial production and administration. Nearly all large semiconductor manufacturers have either their European headquarters, production facilities or important distribution center in Bavaria. The same is true for semiconductor manufacturing plants. The largest supplier in the world of high-purity silicon is also headquartered in Bavaria. Important Bavarian industrial companies in the fields of telecommunications, engineering, data processing and entertainment electronics, as well as in the automotive industry, are the main focus of interest in semiconductors.

The fact that component manufacturers, heavy buyers of industrial products, software suppliers, other service companies and research facilities are concentrated in one area—as is the case in Bavaria—is essential for the application of micro-electronics. This is a prerequisite for creating a *critical mass*, which can only be achieved when the development processing and manufacturing know-how of micro-electronics can develop a self-perpetuating dynamic system. In Bavaria, the variety and diversity of supply and demand in the field of electronics are extensive. Not only large firms, but also medium and small-sized companies have the opportunity to participate in the dynamic development of the electronics-oriented Bavarian economy. □

Bank of America

BANKAMERICA CORPORATION and its subsidiaries provide diverse financial products and services to customers throughout the world. BankAmerica's principal bank subsidiaries are Bank of America NT & SA and Seafirst Corporation's—Seattle First National Bank.

The bank is headquartered in California and operates a total of 1,019 branches between this state and Washington, where Seafirst is quartered. The bank also has 59 branches and representative offices throughout 42 nations, and, Corporate Offices in major U.S. cities such as San Francisco, Los Angeles, New York, Chicago, Atlanta and Houston.

Bank of America NT & SA operations in Germany are managed out of Frankfurt with corporate banking offices in Hamburg, Duesseldorf, Frankfurt and Munich.

BankAmerica's plans with its German customers are an integral part of the bank's European business strategy, which calls for financial services and products in the following key areas:

- *Electronic Banking and Payment Services*, the Bank's strong position in the Transactional Services segment is based on a commitment to quality service, backed with state of the art technology and products, and providing customers with the financial products and services they demand throughout the world. Example products include BAMTRAC, International Treasurer (IT), Microstar, Microwire, Global Cheque, etc.
- *Capital Markets*, the strong presence in Europe and in the U.S. combined with money market expertise provides the competitive edge. The exceptional placement strength in the Western U.S. makes the bank a leading force in the highly competitive U.S. Commercial Paper market. These delivery capabilities are mirrored in Europe where the strong investor base ensures quick and efficient distribution. The Bank is recognized for expertise in Foreign Exchange Trading and in Risk Management Products such as Interest Rate and Currency Swaps and Futures and Options.
- *Corporate Finance*, the bank is a major force in the Syndicated Credit market and has an outstanding track record in Project Finance. In conjunction with opportunities created by the approach of a single market in 1992, clients are assisted in changing their operations across Europe using expertise in Mergers and Acquisitions and Finance. This area also comprises Specialized Trade Finance integrating Bank of America's global network, financial engineering skills and close relationships with major Export Credit Agencies. Recognizing the importance of the U.S. marketplace for European companies the bank has a separate team working out of the New York office, which works with the U.S. subsidiaries of European companies. This team works closely with the bank's officers in Europe to provide a consistent high quality service to the subsidiaries of European companies operating in the U.S.A.
- *Loan Products*, the emphasis is on those products as provided for Structured Financings to specialized industries such as Aerospace, Construction, Energy and Shipping.

In Frankfurt: contact Bank of America Tel: 11-43-7128-407 or 11-43-7128-200.

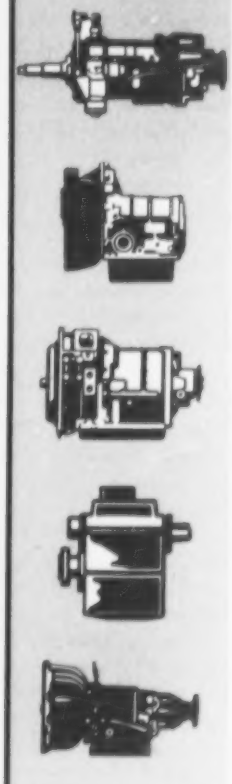
In New York: contact Bank of America Tel: 212-503-8069 or 212-503-7247. □

HYPO BANK

BAYERISCHE HYPOTHEKEN-UND WECHSEL BANK AKTIENGESELLSCHAFT

In 1835, HYPO-BANK was established in Munich by royal decree of King Ludwig I of Bavaria. HYPO-BANK is Germany's oldest publicly-quoted bank and one of the largest with consolidated assets of more than DM 135 billion.

HYPO-BANK is engaged in both commercial and mortgage banking, operates the largest branch network in southern Germany and is also active nationwide in key business centers such as Berlin, Duesseldorf, Frank-



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For more information and a copy of our annual report, please contact the Banking Department, Financial Square, 32 Old Slip, New York, N.Y. 10005, Tel.: (212) 248-0650 or the International Department, A/PSK, Theatinerstrasse 11, D-8000 Munich 2, Tel.: (089) 2366-8323, Telex: 52865-0 □

Bayerische Landesbank

BAYERISCHE LANDESBANK's origins date back to the late nineteenth century, and the Bank has grown into one of the leading banking institutions in the Federal Republic of Germany. Headquartered in Munich, Bayerische Landesbank operates branch offices in New York, London, Singapore and a subsidiary in Luxembourg, as well as Representative Offices in Tokyo, Paris, Vienna, Toronto and Johannesburg. In addition, a Grand Cayman Branch as well as an International Banking Facility (IBF)—operating out of New York—supply offshore banking services.

Bayerische Landesbank, a public-sector financial institution, is 50% owned by the State of Bavaria and 50% by the Bavarian Savings Banks' Association. The Association is owned by the savings banks, which in turn are owned by their municipalities. By statute, Bayerische Landesbank's obligations are jointly and severally guaranteed by its owners.

Bayerische Landesbank's consolidated total assets now amount to some DM 150 billion. The Bank has been accorded the highest short and long-term ratings from both major U.S. agencies (Moody's P-1, Aaa; Standard & Poor's A-1+, AAA).

The Bank offers a wide range of financial services on a global basis. In Germany, it is one of the largest issuers of securities as well as a major corporate lender. Its primary strengths include a substantial DM deposit base and long-term, fixed rate DM loan capabilities.

Since establishing its Representative Office in New York in October 1979, and gaining full branch status two years later, in October 1981, Bayerische Landesbank has become a major wholesale lending participant throughout the country.

The New York Branch offers a full range of domestic and international financial services, including loans, foreign exchange and money market expertise, as well as documentary and collection capabilities.
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BAYERISCHE VEREINSBANK AKTIENGESELLSCHAFT

BAYERISCHE VEREINSBANK AKTIENGESELLSCHAFT was incorporated in Munich in 1869 as a commercial and morgage bank. In 1971, it merged with Bayerische Staatsbank, which was founded in 1780. Today Bayerische Vereinsbank ranks fourth among the private-sector banks in Germany. Together with its mortgage subsidiaries, Bayerische Vereinsbank is the largest private-sector, long-term banking group in Germany. As of December 31, 1988, the Bank's balance sheet total stood at DM 98.1 billion, consolidated total assets at about DM 163 billion. Our ratings are as follows: P 1 (Aaa for long term rating) with Moody's and A-1+ with Standard & Poor's.

As one of the few banks specializing in both the commercial and mortgage fields, BV offers particularly diversified services. Bayerische Vereinsbank holds interests in several well-known private banks in West Germany. The Bank's wholly-owned subsidiary, Bayerische Vereinsbank International S.A., Luxembourg, is active in the Euromarket with total assets of some DM 8.2 billion.

International business is conducted by about 50 domestic branches and from about 20 locations strategically placed around the world. Also Bayerische Vereinsbank's subsidiaries BV Capital Markets (Asia) Ltd. in Tokyo and BV Capital Inc. in New York are active in international investment banking.

North America is a major focus of Bayerische Vereinsbank's international activities. The bank's network in North America is the largest of all German banks, with branches in New York and Chicago and offices in Atlanta, Los Angeles and Cleveland, plus two Eurobases in New York and on the Cayman Islands. Furthermore, BV Capital Markets and BV Capital Management in New York manage the investment banking business and property management in North America.

With over 400 branches and a staff of 13,000 employees, Bayerische Vereinsbank offers comprehensive domestic and international services tailored to the individual needs of its clients. The Bank has more than 100,000 shareholders. □

BECKER AUTORADIO

Becker Autoradio is known worldwide for its quality radios, which are factory-installed in the leading makes of German automobiles and also sold through authorized dealers.

BECKER OF NORTH AMERICA, INC., operates the nationwide service network that maintains Becker automobile radios and also imports and distributes them to aftermarket retailers. Becker of North America, Inc., also imports, distributes and services Becker avionic equipment, including communications and navigation equipment as well as emergency transmitters and receivers.

Becker products are manufactured in several locations in West Germany. The company's worldwide headquarters, research and development offices and main manufacturing plant are located in Ittersbach, West Germany.

The company was founded in 1945 when Max Egon Becker, a radio enthusiast, opened a small radio sales, repair and audio research business in two rooms of a 300-year-old house in Pforzheim, West Germany.

By 1948, with the aid of a small staff, Becker produced a limited number of automobile radios. The following year, the first Becker Autoradio was installed in a Mercedes-Benz. Since that time, Becker has remained the radio of choice for Mercedes-Benz.

In the next decade, the company grew in size and its radios continually outperformed other radios in numerous competitions. In 1953, Becker introduced the company's first AM-FM car radio with a signal-seeking circuit. This proved to be a breakthrough which permitted single control, automatic selection of stations on both AM and FM bands and greatly simplified operation.

In 1956, the company entered the sophisticated avionics field and its first product, the communication set "AR 24", was an instant technical and commercial success.

By 1960, with the number of Becker radios on American roads growing so rapidly, the company decided to set up a United States facility in Pasadena, California.

In 1982, the company moved to its present quarters in Upper Saddle River, New Jersey, allowing Becker of North America, Inc. to provide increased service and to maintain a large inventory of radios and parts to keep pace with the increasing demand on this continent. □

BEHR
Behr of America, Inc.

JULIUS FR. BEHR GMBH & CO. KG, is the largest independent manufacturer of automotive climate control and engine cooling equipment in Europe. The Behr-Group is headquartered in the Federal Republic of Germany with annual sales exceeding DM 1.3 billion per year, and produces over six million radiators, air conditioners and heaters annually. Affiliated companies and subsidiaries of the Behr-Group are located in Germany, Brazil, France, India, Italy, Spain and the United States. The Behr-Group employs more than 8,000 people worldwide, and produces equipment that is installed by most European car and truck manufacturers.

BEHR OF AMERICA, INC. (BoA), founded in 1969, as a subsidiary of the parent company, is headquartered and operates a manufacturing facility in Fort Worth, Texas where air conditioning systems and components are produced for the passenger car, heavy duty truck, and agricultural and construction equipment industries.

Behr of America air conditioning systems and subassemblies are delivered to vehicle manufacturer assembly plants in North America and Europe. BoA will also provide for installation at port of entry, or vehicle preparation centers.

Behr of America's Engineering Department is capable of assuming full heater and air conditioning system responsibility as well as the capability to design specific components for the vehicle manufacturer. Behr of America personnel have broad application experience both in the United States and overseas markets and are fully supported by the research and development departments of the parent company in Germany.

The Behr of America manufacturing facility for all-aluminum heat exchangers applies the latest technology available today. Ultrasonic cleaning and fluxless brazing processes prevent corrosive residues thus assuring longer life of the entire system.

Current customers to Behr of America include BMW, J.I. Case, Freightliner, Komatsu/Dresser, Iveco, Mack Trucks, Pininfarina and Volvo GM for original equipment applications and among others Mercedes Benz of North America, Mercedes-Benz Truck Company and BMW of North America for replacement parts. □

Bertelsmann

BERTELSMANN AG, founded in 1835 as a printing and publishing house in Germany, is now a leading global communications concern with activities in twenty-five countries. Its 200 operating units are managed autonomously under the company's philosophy of decentralization.

Bertelsmann's development into a major worldwide book and mgazine publisher, book club operator, printer and record company has occurred since 1947, under the direction of Reinhard Mohn, now Chairman of the Supervisory Board, and more recently under that of Mark Woessner, President and CEO. The company consists of six independent divisions that employ about 44,000 persons. Of the more than $7 billion in worldwide revenues, about one third are generated in the United States by the following groups of Bertelsmann companies:

- **Bertelsmann Music Group**—headquartered in New York City, BMG consists of famous record labels such as RCA, Arista and Ariola. BMG operates in more than twenty countries.
- **Bantam Doubleday Dell Publishing Group**—comprised of three independent houses which taken together form the largest English language general book publisher in the world.
- **Doubleday Book & Music Clubs**—eight clubs in the United States include The Literary Guild and Doubleday Book Club. Worldwide, Bertelsmann book clubs serve more that 22 million members.
- **Bertelsmann Printing & Manufacturing Corp.**—BPMC is a leading full-service printer and book manufacturer. It has six facilities in Virginia, Pennsylvania and California.
- **Gruner + Jahr USA Publishing**—The American arm of the international publishing firm with such titles as *Stern, Capital, Prima* and *Eltern* is known in the U.S. for *Parents, Expecting* and *YM* magazines. Bertelsmann owns 74.9 percent of G + J.
- **Brown Printing Co.**—with eight plants located throughout the country, Brown is one of the nation's premier magazine and catalog printers. A unit of Gruner + Jahr, Brown prints editions of *Time, Sports Illustrated* and *Bussiness Week*, among other magazines.
- **Doubleday Book Shops, Inc.**—the thirty-five Doubleday book stores from coast to coast are noted for the variety and depth of their book inventories, their knowledgeable sales personnel and efficient service.

The United States units are provided with corporate support by Bertelsmann, Inc., which maintains relationships with banking and lending institutions in this country. Its staff oversees tax and legal activities in the U.S. and other countries.

To receive a booklet describing the American operations, please contact Bertelsmann, Inc., 666 Fifth Ave., New York, NY 10103, 212/245-5770, or Bertelsmann Corporate Communications-News Bureau, 211 East 43rd St., New York, NY 10017, 212/687-1765. □

Boehringer Ingelheim

BOEHRINGER INGELHEIM CORPORATION, Ridgefield, Connecticut, is a health care company and the principal licensee of Boehringer Ingelheim International GmbH. A wholly-owned subsidiary of

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Pharma-Investment, Ltd., Toronto, Canada, Boehringer Ingelheim Corporation is the parent and sole stockholder of a number of companies that develop, produce, and sell a wide range of pharmaceutical products, veterinary medicines and biologicals, argicultural chemical products, fine and specialty chemicals, and, most recently, bakery products.

Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield and Danbury, Connecticut, the largest operating company of the corporation, is an ethical pharmaceutical and consumer products developer and manufacturer. Other subsidiary companies include Roxane Laboratories, Inc., Columbus, Ohio, a pharmaceutical unit dose manufacturer; Boehringer Ingelheim Animal Health, Inc., St. Joseph, Missouri, a developer and manufacturer of veterinary medicines and biologicals; and a group of chemical companies, including Henley Chemicals, Inc., Montvale, New Jersey, fine and specialty chemical distributors; Infracorp Ltd., Petersburg, Virginia, a chemical engineering and service group operated in conjunction with Lee Laboratories, Petersburg, a joint venture with A.H. Robins, producing pharmaceutical chemicals. The newest member company of Boehringer Ingelheim Corporation is BI Bakery Products, Bohemia, New York, which markets four main types of bakery products: dough conditioners, concentrates of conditioners, premixes and complete mixes. The complete mixes are manufactured primarily in Bohemia.

The Boehringer Ingelheim Corporation has a strong commitment to the development, manufacture, and sale of significant new products for health care. □

BLG
Bremen / Bremerhaven

The BREMER LAGERHAUS-GESELLSCHAFT (BLG) is the operator of the freeports in Bremen and Bremerhaven. It is a joint stock company, the controlling interest (50.4%) being held by the City of Bremen. The BLG employs about 4,000 persons.

The tasks of the BLG include the handling of goods to and from ships and all the activities connected with this, such as loading and unloading rail and road trucks, and the storage and distribution of goods. The BLG is also concerned with planning, construction, acquisition, and the financing and maintenance of buildings and handling equipment (superstructure). The infrastructure (harbour basins, quays, railways and roads) is the responsibility of the City of Bremen.

In 1988, the BLG handled a total of 17 million tons of goods at its installations, including 10.3 million tons in more than 1.1 million containers (TEU).

In *Bremen* the BLG runs the Oversea Harbour, the Europe Harbour, the Neustadt Harbour, and the grain terminal. The emphasis is on handling conventional general cargo. Special importance, however, is traditionally given to the import of cotton, wool, coffee, tobacco, forest products, and citrus fruits, which are delivered to the most important German and European markets via Bremen. The export of steel products and chemical wares is the essential business of the export trade. Bremen's most modern installation is the Neustadt Harbour, designed as a multipurpose terminal for handling containers and general cargo, including bulk cargo and industrial plants.

In 1988, the BLG handled 5.2 million tons of general cargo in Bremen (1.6 million tons in containers) plus 1.1 million tons of grain and feedstuff.

In *Bremerhaven* the heart of the BLG installations is the container terminal. With an area of 1.6 million square meters and berths extending for more than three kilometers, it is Europe's largest container-handling facility. On the storage areas, 30,000 containers (TEU) can be stacked two-high. At the Stromkaje, eight large container ships can berth simultaneously. The Nordhafen, part of the terminal, has 900 meters of quayside. Here ro/ro cargoes are handled as well as containers. A further important activity in Bremerhaven is the transhipment of motor vehicles. In 1988, about 700,000 vehicles were exported or imported via the BLG facilities, more than in any other European port. Another considerable factor is the import of nearly 540,000 tons of bananas.

In 1988, the BLG handled 10.7 million tons of general cargo in Bremerhaven, of which 8.7 million tons (81%) were containerized.

In the PORTS OF BREMEN AND BREMERHAVEN altogether a grand total of almost 30.9 million tons of goods of all kinds were handled in 1988, of which more than 19 million tons were general cargo. The foreign trade volumes handled via Bremen and Bremerhaven represent a value of more than 70 billion marks. In the Federal State of Bremen nearly every third job is connected with the port economy. Analogous to this, the whole spectrum of workplaces directly or indirectly related to the port creates about one-third of Bremen's gross social product. □

THE Budd COMPANY

THE BUDD COMPANY is recognized internationally as a leading supplier to the automotive industry. As a subsidiary of Thyssen AG, of Duisburg, West Germany, Budd is backed by the technical resources of an international partner in the automotive industry with expertise in materials, components and systems. This year marks the 11th anniversary of the Budd-Thyssen relationship.

Siegfried Buschmann has been appointed by The Budd Company Board of Directors to the position of Chairman of the Board and Chief Executive Officer. Budd's past chairman, James H. McNeal, Jr., retired last December. David P. Williams continues as Budd's President and Chief Operating Officer, while James S. Roth has been appointed to the newly-created position of Senior Vice President. Roth will continue as President of Budd's Stamping & Frame Division, Budd's largest operation.

Buchmann has served on Budd's Board for seven years and since 1986 as Vice Chairman and Chief Financial Officer. Prior to this appointment, he had served as Senior Vice President and Chief Financial Officer.

Before joining Budd in 1982, Buschmann, a native of Essen, West Germany, served in several executive position at Thyssen AG.

Buschmann is currently President of Thyssen Holding Corporation, which owns all of Thyssen's companies in the U.S.

Buschmann is also a member of the Board of Directors of Budd Canada Inc., Hueller Hille Corporation, and Thyssen Specialty Steels Inc. He is Chairman of the Supervisory Board of Ferrozell-Gesellschaft Sachs & Co. mbH in Augsburg, West Germany.

Buschmann earned a master's degree in business administration in 1964 from Wilhelms University in Muenster, West Germany.

Budd's range of automotive products includes steel stampings and assemblies, full frames and chassis frame components, heavy duty truck wheels, hubs, drums and attaching parts, SMC plastic autobody panels, prototypes, cold weather starting aids and water skis.

Budd offers the unique capability to supply its customers with automotive components from a full range of materials, such as steel, plastic, aluminum, and gray iron castings.

Budd recently opened a new $100 million automotive stamping plant in Shelbyville, KY, as well as a new $24 million plastics molding facility in Kendallville, IN. The company,

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Telephone (0211) 87 73 - 0, Telefax (0211) 87 73 - 100

Managing Directors: Richard W. Montague, Dr. Peter H. Osthues, Volker T. Wiegmann

headquartered in Troy, MI, currently employs more than 11,000 worldwide.

If you would like more information about Budd, please write or call:

The Budd Company
Public Affairs Department
3155 West Big Beaver Road
Troy, MI 48084
Telephone: (313) 643-3500 □

CARRÉ, ORBAN & PARTNERS

CARRÉ, ORBAN & PARTNERS
A Member of Carré, Orban & Paul Ray International

CARRÉ, ORBAN & PARTNERS INTERNATIONAL is a firm of management consultants with offices in Amsterdam, Atlanta, Barcelona, Brussels, Chicago, Dallas, Düsseldorf, Fort Worth, Geneva, Houston, London, Los Angeles, Luxemburg, Madrid, Milan, New York, Palm Springs, Paris, Rome and Zurich. The firm's clients are industrial, financial and service businesses as well as governmental and international organizations.

The prime objectives of Carré, Orban & Partners International are to bring professional, pragmatic and long lasting solutions to their clients' executive resource management problems and to assist clients in capitalizing on new business and technological opportunities.

Executive Search

This service assists clients in the selection of senior-level human resources. The firm works with clients to define the parameters of a given position in order systematically to search, evaluate, select, motivate and integrate the newly chosen executive into a client company. The firm also accepts assignments to identify and select outside board members.

Management Audits

This service guides clients in evaluating management structures and advises in times of strategy review during mergers, turnarounds or divestments. It includes analysis of management structure, evaluation of executive capabilities, and suggestions of ideal executive profiles.

Executive Resource Management

The firm provides expertise in assisting their clients' leaders in the management of their top 15 to 150 careers. This includes the design of recruiting, performance appraisal and compensation programs as well as resolving issues in industrial labor relations and restructuring corporate training and development programs.

Corporate Mergers and Acquisitions

The firm undertakes searches for acquisition or merger candidates, as well as searches for joint venture corporate partners. Such acquisition engagements assist clients in finding new businesses, new markets or new technological fields.

We assist in setting strategic objectives for companies recently acquired or sold, and assist in integrating new additions into a unified corporate structure and strategy.

For more information, please contact: Volker T. Wiegmann, Carré, Orban & Partner GmbH, Koenigsallee 6-8, D-4000 Duesseldorf 1, West Germany, Telephone (0211) 87 73—0, Telefax: (0211) 87 73—100. □

THE CHASE MANHATTAN BANK serves individual, corporate, institutional and government clients around the world.

With 42,000 employees in over 50 countries, Chase provides a comprehensive range of financial products and services.

Chase AG, headquartered in Frankfurt, can call upon a distinguished team of investment bankers experienced in mergers and acquisitions, leasing, swaps, private placements and syndications. Within Germany, Chase Manhattan has industry expertise in manufacturing, primary industries, energy, shipping, media and electronics, consumer goods and services and aerospace.

The service products sector of Chase brings under one management cash management products, trade finance and international advisory services, all deliverable through a global electronic network. □

COMMERZBANK CAPITAL MARKETS CORPORATION

COMMERZBANK CAPITAL MARKETS CORPORATION (CCMC), founded on March 1, 1988, is a full-service investment bank headquartered in New York, serving major corporations, institutions, governments and private investors around the world. As a wholly-owned subsidiary of Commerzbank AG, one of the leading German "universal" banks, CCMC is continuing a twenty-year long tradition of U.S. investment banking activities started with several European partners. CCMC is member of both the New York Stock Exchange and the Securities Investor Protection Corporation.

CCMC offers a wide range of securities and currency trading services and makes markets in German and other foreign securities in the United States. In addition, CCMC participates in the Euromarkets and other regional and national financial centers worldwide. CCMC's membership on the New York Stock Exchange combined with Commerzbank's longstanding international relationships ensure fast and skillful execution of all orders placed by institutional and private clients. As a self-clearing firm, CCMC's trading capabilities are supported by an efficient and responsive back office and operations department. Due to its intimate knowledge of the German and other foreign securities markets, CCMC provides its expertise to both institutional investors and private clients.

Serving as a conduit for Commerzbank's worldwide investment research capabilities, CCMC's sophisticated quantitative portfolio strategies enable investors to take advantage of opportunities in the world capital markets. The firm's U.S. research is geared to the specific requirements of foreign investors wishing to diversify into U.S. dollar equity and bond investments. CCMC's research staff continuously reviews and evaluates the general economic and political situation in the United States, developments of various industry groups, and the prospects for particular companies.

CCMC offers full-service private banking for affluent individuals worldwide, including a wide range of financial planning and portfolio management services carefully tailored to each client's specific investment objectives and risk tolerance. Using a strategy of global diversification, the emphasis is on risk management implementing state-of-the-art asset allocation strategies combined with quantitative country and stock selection techniques.

CCMC also provides specialized corporate finance advisory services and participates in underwriting U.S. and non-U.S. equity and debt issues and in raising capital through private placements.

Drawing on the global resources of the Commerzbank Group, CCMC seeks to build close client relationships based on trust and understanding, with a strong commitment to efficiency and excellent service. □

COMMERZBANK

Founded in 1870, COMMERZBANK soon became a leading force in German banking. Today, it ranks third among the "Big Three" German branch banks, providing an extensive range of services for its some 3 million customers at home and abroad. Its consolidated total assets as of October 30, 1989 reached almost DM 190 billion, with its capital and reserves amounting to over DM 6 billion. As of that same date, the Commerzbank Group maintained a network of almost 900 branch offices at home and abroad, employing more than 27,000 people.

Commerzbank is strongly engaged in all kinds of commercial, investment, and merchant banking, while also being active as a broker/dealer. Emphasis in commercial banking used to be on short and medium-term loans, but over the last two decades, long-term lending has increasingly become significant, too. The same applies to such financial services as, especially, assistance with mergers and acquisitions or with stock exchange introductions. Other areas enjoying a favorable development more recently have been asset management and trust business. Although the bank has always considered wholesale banking as one of its particular strongpoints, retail banking has also experienced rapid growth over the past 30 years and now accounts for roughly half of the bank's business at home.

Commerzbank's domestic presence is reinforced by some 20 banking and financial associates, the most important of which are RHEINHYP-Rheinische Hypothekenbank, a leading German mortgage bank, and Berliner Commerzbank, the bank's West German subsidary.

Non-domestic activities today add up to approximately one-third of Commerzbank's total business, stretching from trade and corporate finance to syndication business and project finance, while also including foreign exchange and interest swaps, currency options and sophisticated cash management services.

The bank's international presence extends to about 70 foreign outlets and holdings in over 30 countries. Operative units, most of which concentrate on wholesale business, are maintained in all the major international financial centers, where thirteen branch offices and six subsidiaries are operated. In addition, the bank runs 20 representative offices and has numerous holdings in foreign financial institutions.

Commerzbank has always maintained especially close relations with the U.S. In 1971, it transformed its New York representative office—which dated back to 1967—into an operative unit, thus becoming the first German bank to open a full-service branch in the country. It expanded its U.S. presence by establishing another branch office in Chicago in 1974, an agency in Atlanta in 1979 and a branch office in Los Angeles in 1985. Through a spin-off operation effected in early 1988, a New York-based joint-venture investment banking offshoot was restructured into a wholly-owned subsidiary, Commerzbank Capital Markets Corporation. □

Coopers & Lybrand

Growing your business in a new country is not a simple task. An adaptation process is required so that your new American venture can succeed in its new environment.

COOPERS & LYBRAND understands that this "cultural transplant" needs a great deal of tending and has designed a special program for both German investors and German companies with U.S. operations.

Our network of over 95 U.S. offices is staffed with partners experienced in both start-up and well established businesses. All our people are business people who approach work with one overriding goal: to help your company succeed. We have the financial and management experience to make your German business a success in America.

Our special program for German companies is led by Kurt Ramin, who is fluent in German and travels to Germany regularly. We have already helped many large and small German companies establish new operations and make acquisitions in the U.S.

To help you become part of your new environment quickly, Coopers & Lybrand can provide you with introductions to banks, attorneys and members of the local business community.

Because of Coopers & Lybrand's expertise in different industry groups, we can also advise you on the economics and problems facing specific industries in the U.S. We will keep you abreast of changing rules and regulations from Washington and guide you through the complex maze of actuarial, benefits and compensation regulations.

Through the merger of Treuhand-Vereinigung AG and Treuarbeit AG we are well represented in Germany. Offices are maintained in over 20 German cities.

For further information, please contact Kurt Ramin, 1251 Avenue of the Americas, New York, NY 10020, Telephone: (212) 536-1850, FAX: 212-536-3500. □

C&S

The CITIZENS AND SOUTHERN CORPORATION (C&S), headquartered in Atlanta, GA, announced a merger of equals with the Norfolk, VA based SOVRAN FINANCIAL CORPORATION, creating the 14th largest banking company in the U.S. with nearly 1,000 branches stretching from Maryland to Florida. The merger, which should be consummated in the first quarter of 1990, will create a new holding company by the name of AVANTOR FINANCIAL CORPORATION, with dual headquarters in Atlanta and Norfolk. Avantor will be the nation's 14th largest banking company in terms of assets, with the third largest branch network.

This important step in the evolution of the organization presents a great opportunity to build on C&S's historical strengths of serving the international community. Over the past 25 years, the Bank's International Department has developed an extensive network of approximately 1,000 international correspondent banks and placed representative offices in London, Singapore and Rio de Janeiro. C&S's specialized International Corporate Banking Group services the banking needs of the growing number of U.S. subsidiaries of foreign companies. These firms look to C&S for traditional banking services, as well as specialized financial services such as Private Banking, Commercial Real Estate, Equipment Leasing, Factoring, Cash Management, Services and Investments.

C&S presently serves over 300 European and Canadian firms, including over 100 German and Swiss companies. While among C&S's customers are some of Germany's largest corporations, an increasing number are smaller firms with minimal U.S. experience who welcome the guidance which C&S as a major regional bank can give them. □

International Savvy

In the heart of the Southeast

If you're looking for a bank that knows international finance, you've found it in C&S. Foreign market and credit information, foreign exchange purchases and sales, loans, acceptance financing, import letters of credit, fast payment of collections, bank transfers to foreign suppliers, international factoring, and a rapid worldwide cash management system ...we've got it all.

We're on the scene, too. We have international representative offices plus an extensive network of correspondent banks worldwide. Closer to home, we've got you covered with 434 offices in the United States and over 500 correspondent banks throughout the Southeast, one of the fastest growing regions in the U.S.

It's an international fact...we're a leader in financing international business in the Southeast.

Find out more about our international savvy. Contact R.Buford Sears, Senior Vice President, C&S International Division (TELEX 542346, S.W.I.F.T. CSBKUS33) Phone 404-581-3782. Or write P.O.Box 4899, Atlanta, Georgia 30302-4899.

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DG BANK
Deutsche Genossenschaftsbank

DG BANK, a wholesale bank headquartered in Frankfurt am Main and operating an extensive international network, provides comprehensive commercial and investment banking services and acts as central bank for the cooperative banking system which forms an integral part of the financial community in the Federal Republic of Germany.

In the United States, DG Bank has established a firm presence through branches in New York and Los Angeles, a representative office in Atlanta, Georgia, and the DG Securities Services Corporation, New York.

The Bank's New York Branch provides a wide range of commercial banking services for corporate, institutional, and private clients. Its trust business includes money management services to institutional and private customers, emphasizing investment advisory and custodial services and real estate advisory services. Offshore business is conducted through an International Banking Facility and a Cayman Islands Branch. The Los Angeles Branch and the Atlanta Agency concentrate on servicing corporate banking needs in their respective business regions.

The DG Securities Services Corporation, a wholly-owned subsidiary of DG Bank, links American institutional investors with foreign, particularly the German, securities markets as a broker, investment advisor, and portfolio manager.

At year-end, 1988, the consolidated assets of DG Bank Group were DM 132.6 billion (U.S.$ equivalent 74.5 billion) while its business volume (total assets plus contingent items) reached DM 139.8 billion (U.S.$ 78.5 billion). The Group's loan portfolio expanded by 5.5 percent, to DM 87.9 billion (U.S.$ 49.4 billion). Above-average growth was again achieved in export finance.

The Group also recorded continous growth in its foreign documentary business, foreign exchange, securities and syndication business. DG Bank acted as lead manager in eleven international issues and as a co-manager in a further 152 international issues of shares and bonds; during 1988, the Bank again introduced the shares of an American corporation to the Frankfurt Stock Exchange.

The German cooperative banking system is ultimately owned by 11.2 million shareholding members. At year-end, 1988, the system comprised 3,363 local banks with a total of more than 19,000 offices throughout the Federal Republic, five regional banks, the DG Bank Group and numerous specialized financial institutions; their consolidated assets exceed DM 590 billion (U.S.$ 330 billion).□

Degussa

DEGUSSA, founded in 1873 and headquartered in Frankfurt am Main, Federal Republic of Germany, has grown from a refiner of gold and silver coinage to an international leader in the development and manufacture of chemical, precious metal and pharmaceutical specialties with worldwide annual sales approximating $8 billion. In addition to maintaining numerous plants and research and development laboratories in the Federal Republic of Germany, Degussa supplies intermediate products from manufacturing facilities in 22 countries throughout the world.

Degussa Corporation, the American subsidiary of Degussa AG, supplies products and services used in diverse domestic industries such as agriculture, automotive, ceramic and glass, dental, electronic, health care, plastic and textile. Production plants in the United States are located in Alabama, California, Kentucky, New Jersey, New York and Pennsylvania.

In 1988, the favorable economic climate and Degussa Corporation's continued commitment to quality and service strongly influenced the company's results. Sales of industrial products increased by 30%. Precious metal trading more than doubled. Total revenue reached $1.4 billion. Earnings of both the Chemical and Metal Groups were significantly higher.

To maintain future growth, one of Degussa Corporation's major objectives is to accelerate domestic production in areas where the parent company excels. The Chemical Group continued implementation of this objective by expanding production capacities for two of the major product lines: Aerosil and DL-methionine. Construction of an eighty million pound acrolein plant began and plans for a sixty million pound sodium cyanide facility were announced. Both plants will be located at Degussa Corporation's Mobile, Alabama complex.

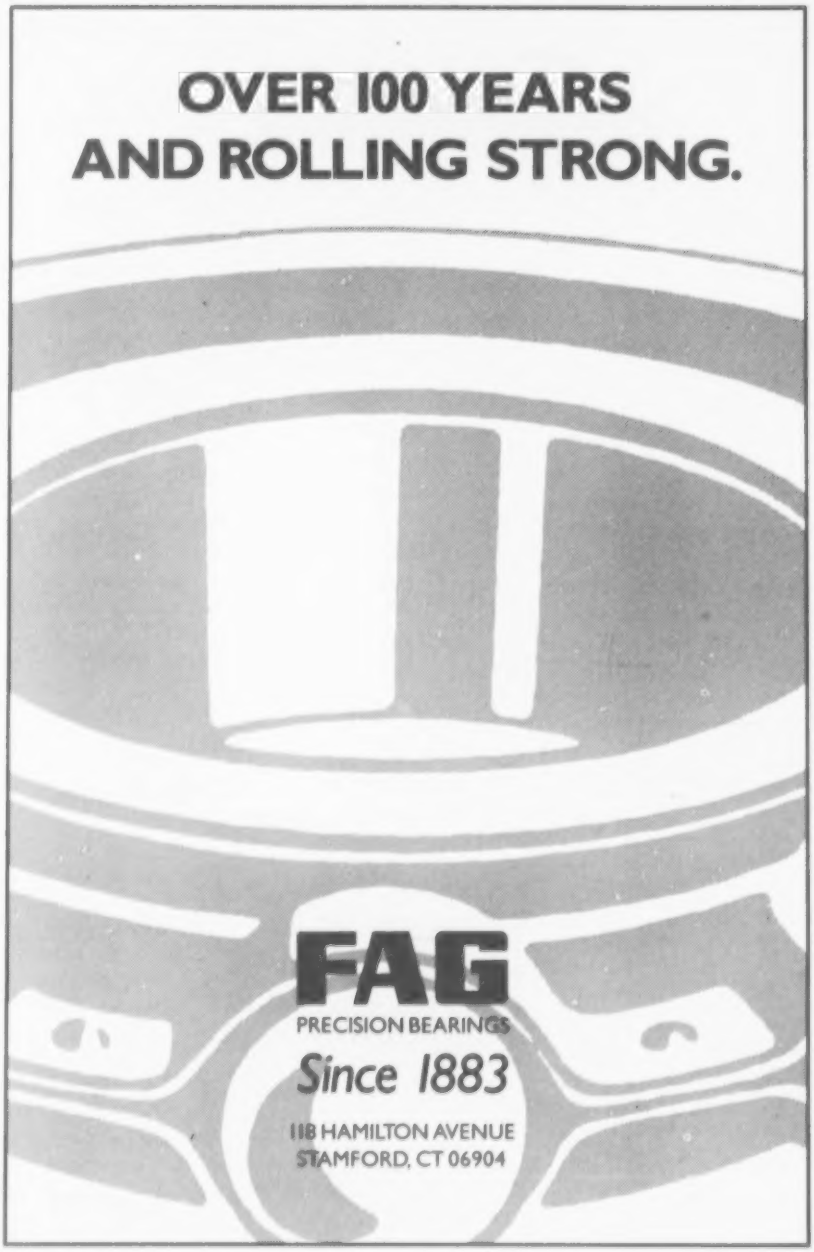
The purchase of three carbon black plants

from Ashland Chemical Company was a logical step in reinforcing Degussa's very important global supply position. This acquisition gives Degussa Corporation a significant market position in the USA and makes Degussa the number two supplier of carbon black worldwide.

The Metal Group continues to invest aggressively. Modern production facilities and new technologies give Degussa Corporation a competitive edge. The introduction of innovative new products of the highest quality are broadening the customer base.

During the past year both the Chemical and Metal Groups strengthened their sales and customer service organizations. The company improved its technical service facilities and relocated its headquarters and the Chemical Group into new modern offices.

Degussa Corporation is experiencing an exciting period of growth. The increasing support from the company's customers and the continued dedication of all its employees are the key elements for achievement. □



Deutsche Bank
A century of universal banking

DEUTSCHE BANK, headquartered in Frankfurt-on-Main, is the largest bank in the Federal Republic of Germany with total assets (consolidated) as per December 31, 1988 of DM 305.3 ($171.5) billion, deposits of DM 276.7 ($155.4) billion and Group capital and reserves of DM 11.5 ($6.46) billion. It is also one of the world's leading banking institutions.

Deutsche Bank as a *universal bank* is active in both commercial and investment banking and, since the acquisition of the majority of one of Germany's leading management consultancy firms, Roland Berger, has further diversified into the consultancy business. With a newly founded subsidiary it is also active in the life insurance market. The bank and its 50 consolidated subsidiaries consist of commercial banks, mortgage banks, investment banking companies, leasing companies, international financing companies, consulting firms and other specialized institutions in Germany and abroad.

The principal strength of Deutsche Bank derives from its commercial banking position in Germany where it can claim to be the lead-

ing bank in corporate and private customer-business, measured by assets as well as deposits. Its network comprises 1,328 domestic branches. Deutsche Bank also is Germany's largest investment bank and brokerage firm. It ranks among the top participants in the Eurobond market and is represented in all important financial centers of the world. Through Deutsche Bank Luxembourg S.A., the bank is one of the leading institutions involved in Euromarket lending and loan syndications.

In recent years, the bank has substantially increased its international commercial and investment banking activities with a special focus on Europe where its position has been enhanced considerably in Italy, The Netherlands, Spain and Portugal. With similar emphasis, the bank consolidated its presence in East Asia by acquiring the former European Asian Bank and merging it with Deutsche Bank, thereby adding a comprehensive branch network in one of the major growth areas of the world.

Deutsche Bank's objective in North America continues to center on serving the needs of its German and international clients active in the U.S. and Canada as well as strengthening further its position in the North American domestic corporate market. Its New York Branch, established in 1978, is mainly involved in commercial wholesale banking with emphasis on short and medium term lending, credit enhancement, project finance, documentary business and foreign exchange. Off-shore activities are channeled through the International Banking Facility (IBF) and Cayman Islands. The bank also has branches in Chicago and Los Angeles.

Deutsche Bank is engaged in U.S. investment banking and securities brokerage through its wholly-owned subsidiary Deutsche Bank Capital (see separate profile). In Canada, the Bank operates—in the commercial banking section—through Deutsche Bank (Canada), a representative office and the wholly-owned securities broker McLean McCarthy, all in Toronto. Furthermore, the bank is active in the U.S. in sales financing through its wholly-owned subsidiary Deutsche Credit Corporation in Deerfield, Illinois (see separate profile). □

Deutsche Credit Corporation

DEUTSCHE CREDIT CORPORATION, a Chicago based commercial finance company with a nationwide network established in 1978, is a wholly owned subsidiary of Deutsche Bank AG and a major source of asset based financing or leasing for domestic and international companies.

The comprehensive range of financial services offered by Deutsche Credit Corporation includes custom-designed financing programs in areas like capital equipment loans, leasing, leveraged leasing, conditional sales financing, floorplanning and private label financing. These wholesale and retail marketing programs can accommodate manufacturers, dealers/distributors and end-users.

The International Leasing Group of Deutsche Credit Corporation provides clients with a complete range of U.S. and international leasing structures, such as crossborder leasing and combinations of crossborder and U.S. transactions.

Deutsche Credit Corporation focuses on financing capital goods produced by the following industries: Aircraft, Communications, Construction Machinery, Data Processing, Electronic Instrumentation, Machine Tools, Material Handling, Medical Equipment, Mining, Printing and Graphic Arts, Transportation, Production Machinery and more.

Headquartered in Deerfield, Illinois (a Northwestern suburb of Chicago), Deutsche Credit Corporation employs 160 professionals in the head office and its regional and district offices, located in major industrial areas such as Atlanta, Chicago, Dallas, Los Angeles, Minneapolis, New York, Philadelphia, Richmond, San Francisco and Tampa. Through this network Deutsche Credit Corporation is able to provide efficient financial service to its corporate clients nationwide. □

Deutsche Bank Capital Corporation

DEUTSCHE BANK CAPITAL CORPORATION (DBCC) has been operating in New York since 1971 and presently employs over 250 professionals and staff. It is a member of the New York Stock Exchange and other principal U.S. exchanges. Deutsche Bank Capital Corporation has paid-in capital in excess of US $100 million.

DBCC's Corporate Finance Department offers a wide range of public and private financings in the U.S. to both U.S. and international clients, including debt and equity underwritings, tax-exempt issues and private placement of preferred stock. The services include advice on mergers, acquisitions, divestitures, and joint ventures in the U.S. and Europe.

The DBCC Swap Department, in concert with the bank's swap teams in London, Tokyo and Frankfurt, gives advice on and executes interest rate, currency and cross-currency interest rate swaps in all major currencies.

DBCC's Securities Department trades and makes markets in German and other foreign equities and ADRs as well as major currency fixed-income securities. An integral part of the bank's worldwide investment banking network, the International Securities Department provides access to Deutsche Bank's trading and research departments in all important financial centers.

In U.S. Dollar Equities the Department provides institutional investors with U.S. equity brokerage, weekly analyses of U.S. economic and capital market conditions, primary research on North American equities and direct placement of primary and secondary equity offerings through its syndicate participations. This department serves as an important link between German investors and U.S. stock markets. DBCC is a *major bracket* underwriter of U.S. corporate bonds and a major distributor of eurodollar bonds for the Deutsche Bank Group.

DBCC's money management services are available to institutional and substantial private investors wishing to diversify into U.S. dollar equity and fixed-income investments. Employing a fundamentally-driven approach, this department emphasizes capital preservation and risk avoidance. Investment strategies adhere to guidelines established in close cooperation with the client.

The Real Estate Division of DBCC combines real estate expertise with capital markets experience to create traditional or innovative financing services. These include securitization of investment-grade commercial real estate, private sales and the sponsorship of income-oriented partnerships. This division acts as investment advisor to a number of Real Estate Investment Trusts with investments of approximately US $1 billion.

DBCC cooperates closely with the bank's other North American operations in a wide variety of public and private financings and financial services. □

Dresdner Bank

DRESDNER BANK is headquartered in Frankfurt, West Germany, and is one of the world's largest and most experienced international banks.

In the United States, Dresdner Bank serves customers from coast to coast, through its branches in New York, Chicago, Los

EM INDUSTRIES, INC.

THE US ASSOCIATE OF E. MERCK, DARMSTADT / GERMANY

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Fax (914) 592-9469

ADVANCED CHEMICALS DIVISION

5 Skyline Drive
Hawthorne, NY 10532
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EM SCIENCE

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Gibbstown, NJ 08027
Tel. (609) 423-6300
Fax (609) 423-4389

FINE CHEMICALS DIVISION

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EM DIAGNOSTIC SYSTEMS, INC.

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5 Skyline Drive
Hawthorne, NY 10532
Tel. (914) 592-4660
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EM INDUSTRIES INC., 5 SKYLINE DRIVE, HAWTHORNE, NY 10532

Angeles, and a regional banking subsidiary in Miami. A wide variety of sophisticated banking services are offered to corporate customers in the U.S., and from around the globe.

Dresdner Bank opened its first office in New York's financial district in 1965. Since then, Dresdner has played an important role in financing increased United States-German economic trade and investment. A quarter of a century later, Dresdner will serve customers from new, modern offices on Wall Street, opening in 1990.

A wide range of corporate finance and investment banking services are provided by ABD Securities Corporation, which recently celebrated its 20th anniversary in the United States. With headquarters in New York, ABD also maintains offices in Boston and Chicago.

ABD owns five seats on the New York Stock Exchange, and handles a substantial amount of portfolio transactions for customers around the world.

In West Germany, Dresdner Bank's activities are typically those of a *universal bank*. It transacts all manner of financial business, and offers its private and corporate customers a comprehensive range of banking services.

In addition to deposit taking and lending, Dresdner has traditionally figured prominently in securities business and money market, foreign exchange and precious metals trading. It also enjoys world-wide standing as an underwriter. A substantial proportion of the bank's business volume is derived from its international operations.

Dresdner Bank is represented in over 50 countries, including all the world's major financial centers. □

EM INDUSTRIES, INC.

The business of the EM INDUSTRIES group will reach a volume of $150 Mil. in 1989 and is channeled through four operating divisions and two associated companies.

The PIGMENT DIVISION supplies pearlescent pigments for cosmetic and industrial applications. These pigments are produced in a large industrial facility in Savannah, GA.

Among the industrial applications, the major target group is the automotive industry, where new exterior colors have been created with the pigments produced by EM Industries. Other markets are the plastics, wallpaper and textile industries.

As to the cosmetical use, the RONA PEARL business group is handling this product line. The pearlescent pigments add an iridescent glow to powders, eye shadows, blushers, lipsticks, liquid makeups, nail enamels, cream, shampoos and soaps.

The ADVANCED CHEMICALS DIVISION supplies sophisticated specialty chemicals to a variety of high technology industries. Interesting products include liquid crystals for display manufacturers and monocrystals for optical applications. In 1984, EM Industries acquired the OPTOVAC group of North Brookfield, Mass., which is a domestic manufacturer of optical crystals. Optovac's facilities have recently been expanded to accommodate the future growth of this high technology business.

The EM SCIENCE DIVISION was initially based on the acquisition of MCB Manufacturing Chemists of Cincinnati, Ohio. MCB is one of the oldest, most respected names in the field of laboratory chemicals. MCB had been able to extend its product offerings with the addition of fine laboratory products from E. Merck, Darmstadt, the largest worldwide supplier of high purity

chemicals. MCB manufactures and sells close to 4,000 products for analytical and research purposes in industrial, educational and government laboratories. EM Science has expanded its product line to include HPLC (High Performance Liquid Cromatography) columns and other supplies. In mid-1987, a majority participation in INTERACTION CHEMICALS, INC. was acquired to expand the HPLC columns business. Interaction manufactures polymeric HPLC columns and is located in Mountain View, CA.

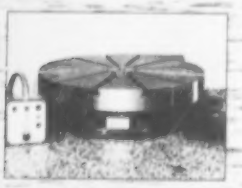
EM DIAGNOSTIC SYSTEMS, INC. handles the business for the United States clinical chemistry market. This company was initially based on the acquisition of the Harleco group, and later on developed into a joint venture with participation of a specialized domestic group. Today, EMDS is again fully owned by the Merck group.

The FINE CHEMICALS DIVISION in turn supplies a range of high purity chemicals to the pharmaceutical and food industry, which includes traditional vitamin compounds like Vitamin C, where E. Merck, Darmstadt, is one of the world's largest manufacturers.

Since its inception, EM Industries has conducted clinical research for the Pharmaceutical Department of E. Merck, Darmstadt. These activities have now been concentrated in a new subsidiary, EM PHARMACEUTICALS, INC., which has expanded its facilities and staff to pursue these activities more aggressively. □

'PRECISION' EIMELDINGEN INDIANAPOLIS

The name 'EIMELDINGEN' has been synonymous with 'precision' production instruments and equipment...worldwide...for over thirty years. Some industries that depend upon EIMELDINGEN 'precision' for inspection, manufacturing and quality control include aerospace, automotive, electronics and machine tools. When your production application demands the ultimate in dependable, repeatable 'precision'...specify EIMELDINGEN.

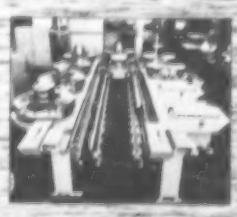


MACHINE TOOL TABLES

EIMELDINGEN precision machine tool tables include 8" diameter units ...airbearing rotary tables for micro-machining and inspection—with measuring accuracies to millionths of an inch...medium-duty tables...and, heavy-duty tables to 160 inches in diameter—with loading capacity to 265,000 pounds. Tables are available as horizontal, vertical or in combination configurations...with fully-indexing or traveling capabilities.

PALLETIZING SYSTEMS

EIMELDINGEN palletizing components and systems provide precision workpiece positioning and automated production flow for machining operations. Components interface directly with new and most existing horizontal and vertical machining centers and VTLs. Customers work with a single, experienced source for the design, fabrication and installation of a turn-key palletizing system; customers are assured of component compatibility for future system integration and expansion of single or multiple machining stations.



MICROPRECISION SUPERMACHINING CENTERS

EIMELDINGEN NC Supermachining Centers can precisely machine flat mechanical parts and electronic components to a mirror finish on two sides...simultaneously. The multi-axis Center utilizes airbearing spindles in the vertical and horizontal planes to machine and finish all sides and shapes of intricate parts...including cylindrical. Supermachining Center options include airbearing horizontal rotary tables and airbearing X-Y slides to meet specific customer application requirements.

SPECIAL APPLICATION SYSTEMS

EIMELDINGEN application expertise and design engineering capabilities solve some of industry's more complicated and unique production automation problems. One example is this tomography system designed, engineered and fabricated for an aerospace client. The system utilizes x-ray technology for the non-destructive testing of structural integrity on large workpieces. Overall, the system is precise to 5 arc seconds in rotation and to 40 micrometers in elevation and translation.

EIMELDINGEN CORPORATION
302 SOUTH HARDING STREET • INDIANAPOLIS, IN 46222
FAX: (317) 692-9504
[illegible]

EIMELDINGEN

EIMELDINGEN Corporation, a wholly-owned subsidiary of Maschinenfabrik Eimeldingen in Eimeldingen, West Germany, was founded in 1979 in Indianapolis, Indiana. Eimeldingen is one of the world's largest manufacturers of ultra-precise rotary machine tool tables. . .dividing, graduating and coordinate tables. . .required for extremely accurate machining, measurement and inspection.

Eimeldingen's international reputation for extreme precision is acknowledged and utilized by industries manufacturing aerospace equipment, aircraft, helicopters, automobiles, generators and turbines.

This prestigious international company was founded in 1932 near Stuttgart as a designer and manufacturer of automatic transfer machines. In 1945, a new production facility built in Eimeldingen, West Germany, started manufacturing vises; various tilting and rotary movement workholding pieces—necessary for a retooling industrial nation—resulted from these original vises.

In the 50's when industry required precision measuring and inspection tables, Eimeldingen designed and manufactured rotary and rotary tilting tables to meet these requirements. In the early 1970's, Eimeldingen's rotary machine tool table was interfaced with other industrial operations, including numerical control capabilities. This served to open the OEM market for Eimeldingen precision rotary tables, which were being widely used for production purposes; since 1975, nearly 80% of all Eimeldingen products have been used in a production function, with sales to all Western countries.

Eimeldingen Ltd. was opened in 1977 as a sales and service facility to accommodate Great Britain and the British Isles. Eimeldingen/Indianapolis was established in 1979 to provide the international firm with yet another manufacturing facility. Eimeldingen/Indianapolis designs and builds precision machine tool tables in many different configurations, palletizing components and systems for automated parts loading and positioning, air bearing rotary tables for micro-machining and parts inspection, air bearing multi-axis superfinishing systems for micro-machining

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applications, and special application equipment and systems to solve complicated manufacturing operations.

SIP machining centers—recognized worldwide as the leader in precision machining centers—in combination with technically qualified design and electronics personnel make it possible for Eimeldingen/Indianapolis to provide the United States market with the same precision industrial manufacturing equipment as that built in Europe. □

Ernst & Young

As a result of the merger of Ernst & Whinney (founded in 1903) and Arthur Young (founded in 1894), ERNST & YOUNG is one of the most respected and preeminent professional service firms in the world. Ernst & Young has offices in over 100 cities in the United States specializing in providing professional assistance and counsel to those already in the United States and to those who may wish to consider an investment there. Through our member firms in Germany with offices in 22 cities (Schitag Schwaebische Treuhand AG-Stuttgart and Ernst & Young GmbH-Frankfurt) and our over 370 offices worldwide, we provide international accounting, auditing, tax, management consulting and other advisory services to help you maximize the likelihood of a successful U.S. venture.

Our professionals will work closely with you in such areas as: pre-investment planning. . . relations with banks and other capital. . . tax planning and international tax advice. . . acquisition reviews. . . accounting records and systems. . . compliance with the 4th and 7th Directives of the EEC. . . independent audits and special reviews. . . management information reports. . . and a wide variety of business management consulting services.

Ernst & Young is noted for the depth and breadth of our experience in serving the needs of companies with international activities especially in the middle market sector. With over 25,000 employees in the United States and total worldwide personnel of over 70,000, the firm has the size and the range of capabilities to serve you, locally and around the world. More than that, we have a record of quality commitment to professional service that will support your organization.

The firm publishes a number of publications and newsletters dealing with U.S. investment strategies and opportunities as well as tax structures, strategies and relevant tax issues. Information concerning our firm's publications as well as copies thereof, can be obtained by writing:

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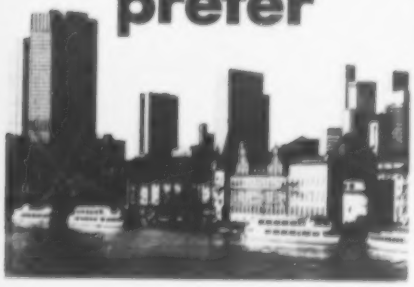
FAG

FAG BEARINGS CORPORATION is an international organization whose trademark is a worldwide symbol of quality and depend-

Companies on the move prefer



Frankfurt.

Companies on the move know from experience that the chances of doing business profitably are greatly improved if they operate from a base that is also on the move – where decision-making comes naturally.

That's why so many domestic and international companies have selected Frankfurt, West Germany's financial and commercial capital.

Where prominence in banking and business enables enterprising, bottom-line companies to get things done. Where innovation flourishes and resourcefulness is rewarded. And where Europe's biggest freight airport provides access to the international marketplace.

If your company is on the move, you'll feel at home in Frankfurt.

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Federal Republic of Germany
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Telefax: (69) 212 36-230

ability in the design and manufacture of bearings in all sizes and configurations. FAG is recognized as the signature of one of the world's oldest and largest manufacturers of precision ball and roller bearings. Since 1883 FAG has led the way in the development and refinement of bearing design and technology. Today, FAG employs over 30,000 people in branches and affiliate plants in the U.S.A., Canada, Brazil, Germany, Austria, Switzerland and Portugal. There are, in addition, FAG sales and service offices and distributors in more than 100 countries.

FAG headquarters in the U.S.A. are located in Stamford, Connecticut, where a full complement of administrative, marketing, engineering and distribution personnel service the American market. FAG also has distribution centers in Memphis, Tennessee and Los Angeles, California. The chief U.S. production facility is in Joplin, Missouri. After undergoing extensive expansion, the Joplin plant has been producing an extended range of bearing types in sizes hitherto never produced in the U.S. FAG's capabilities in bearing design and manufacturing are second to none. From automobiles to rolling mills, machine tools, to spacecraft, FAG is ready to provide bearings, housing, accessories and components, whatever and wherever the need. □

Feralloy CORPORATION

FERALLOY is a pioneer in the steel processing industry. More than thirty years ago, Feralloy began operations in Chicago with one coil slitting line and a large commitment to customer service. Today, Feralloy serves the steel processing requirements of the entire United States through seven processing facilities which are located in:

- Chicago, Illinois
- New Castle, Delaware
- Birmingham, Alabama
- Granite City, Illinois
- Cleveland, Ohio

and Feralloy's new company is:

- Feralloy West Company, Pittsburg, California & Fontana, California

Feralloy of today is one of the largest, most experienced steel processing companies in the country and is a major supplier of processed flat-rolled steel in either slit coils or cut-to-length sheets from master coils held in our inventory under a stocking program scheduled with our customers. Feralloy plants are conveniently located to supply "just-in-time" our customers with prime steel at competitive prices.

During the past years, Feralloy has invested heavily in new equipment as well as in new plants near San Francisco and Los Angeles. The recent investments have been particularly focused on our objectives to strengthen quality assurance. Because Feralloy is committed to its customers LONG-TERM, investing in quality equipment certainly is part of our success.

During the past thirty years, Feralloy has established the credibility necessary for a supplier to become an integral part of the customers' production operations.

Feralloy has a commitment to customer service and dedication to respond to customer requirements. Supported by the financial strength needed to carry inventory and provide modern facilities, Feralloy has earned an excellent reputation based upon integrity. □

FRANKFURT AM MAIN

West Germany, with a population of nearly 62 million people and the fourth largest GNP in the world, is one of the leading economies in Western Europe.

At the heart of West Germany's dynamic economy is FRANKFURT AM MAIN, the nation's financial, commercial and distribution center. There are 406 credit institutions in Frankfurt, and more foreign banks than in any other Continental European city—some 257, including 42 American banks.

Frankfurt is also the home of the Deutsche Bundesbank, West Germany's central bank, as well as the nation's biggest stock exchange.

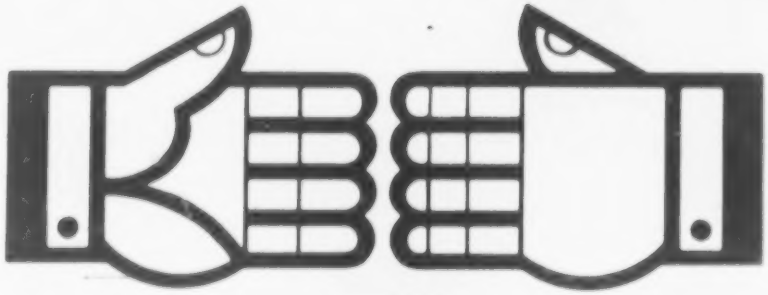
It is a city with a highly sophisticated infrastructure providing all the facilities necessary for innovative decision-making: adequate space; comprehensive legal, tax and financial services; the full range of communications capabilities; a highly skilled workforce; vast market potential; the most modern transportation facilities; a business atmosphere that rewards resourcefulness.

Electronics, chemicals, and engineering are the main manufacturing industries. A healthy mixture of manufacturing and service industries combine with the main service sectors of trade, transportation, communication, banking, finance and insurance to comprise Frankfurt's highly diversified economy.

Frankfurt is the economic and distribution center of the Rhine-Main Region, which has a population of nearly 2.5 million and a workforce of 1.2 million. It is the second largest urban concentration in West Germany and

If you need insurance for your German-American business, we'll give you a hand.

Because we know German-American business like the back of our hand.



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one of the fastest growing areas of Western Europe.

Finally, Frankfurt is clearly the transportation hub of West Germany. Its central location puts it in the mainstream of the country's efficient air, rail, road, and waterway networks which, in turn, provide direct, fast access to all key domestic. West European and overseas markets. □

Messe Frankfurt

MESSE FRANKFURT, LTD., the show host in Frankfurt, Germany, owned jointly by the City of Frankfurt (60%) and the State of Hesse (40%), is responsible for the organization from conception through execution of some of the world's most renowned trade shows and exhibitions. The Frankfurt Fair is more than three times as old as the United States: in 1240, Emperor Friedrich II extended his personal protection to all merchants travelling to the *Messe*, the name evolving at that time out of the word *Mass*, since the merchandise fair was held in the churchyard. With increasing industrialization, the sample fair began to replace the merchandise fair. More recently, the multitude of products and services combined with specialization has resulted in further changes from *universal* and *multi-branch* fairs to today's *special interest* fair. Messe Frankfurt, Ltd., has been and will continue to be a leader in these developments: events such as *Infobase* and *Techtextil* are examples of demand-oriented, highly focused fairs. Messe Frankfurt, Ltd.'s, marketing philosophy is to create new growth possibilities of supply and demand through the subdividing of fair themes, and to access new buyer target groups for exhibitors through the transfer of Frankfurt fairs to Asia. In November 1989, *Interstoff Asia* was hosted for the third time in Hong Kong, catering to the fabric, yarn and accessory needs of the local apparel manufacturers. In February 1990, *Heimtextil Asia* will take place in Tokyo, assisting non-Japanese interior textile manufacturers, among them over 30 U.S. exhibitors, in penetrating the Japanese market. Meanwhile, the world's largest and most international consumer goods trade show, the Frankfurt International Spring Fair, has been divided into two independent special interest events: *premiere* and *ambiente*. They are set to provide a wider selection of goods to the international buyer, taking into account important changes in the structure of the retail level and reflecting even more closely the trends and opportunities of their respective industries world-wide. America's favorite German fair ground is in Frankfurt: 40% of all U.S. exhibitors displaying at German trade shows set up booths in Frankfurt. Total U.S. exhibitors in Frankfurt increased four-fold in the last 10 years to over 1,000 in 1988; total visitors rose to about 10,000. American confidence in the city of Frankfurt is also demonstrated in the investment of Tishman/Speyer and Citibank who are currently building Europe's tallest skyscraper on the Frankfurt fair grounds. Internationalization, specialization, innovation and the city's excellent infrastructure all combine to guarantee an optimal basis for Messe Frankfurt, Ltd.'s, continued success. □

Frenkel & Co. Inc.

FRENKEL & CO., INC. has been a leader in the field of Commercial Insurance and Risk Management for over one hundred years.

We have enjoyed a healthy growth based on a philosophy of being large enough to provide an in-depth approach to corporate insurance problems and small enough to do this on a personal basis. Our many long-term relationships are testimony to the bonds of trust that have been formed through years of dependable service.

Our Risk Management professionals analyze and evaluate exposures to loss and design comprehensive insurance packages specifically tailored to our individual client's needs. We provide safety and fire prevention consulting services. We work closely with our clients to reduce potential loss to property and to personnel. Our Claims Division facilitates prompt and satisfactory settlement of claims. Rounding out the full range of brokerage services are experts in Employee Benefits and Estate Planning.

Through a network of domestic and foreign insurance underwriters, we arrange protection at competitive costs for exposures covering all facets of property, casualty, marine insurance and surety.

Insurance requirements of American subsidiaries of German companies require specialized, in-depth knowledge of German business practices, needs, and relationships as well as an understanding of the insurance marketplace in Germany.

We are particularly proud of our association with our many German-American clients. We can work directly with U.S. subsidiaries of a German parent and equally well in conjunction with a captive broker, risk manager or an independent correspondent broker located in Germany.

You can contact us by calling or writing Mr. Martin L. Elkinson, Executive Vice President, Frenkel & Co., Inc., 123 William Street, New York, New York 10038, telephone (212) 267-2200. □

GMN

In 1908, Mr. Georg Mueller of Nurnberg, Germany, recognizing the need for an improved quality of ball bearings, founded GMN-GEORG MUELLER NURNBERG. Utilizing his talents as a machine tool designer and builder, Mueller began producing ball bearings at a greatly improved quality. GMN soon gained a reputation for manufacturing one of the most precise and consistent ball bearings in the world.

GMN grew rapidly and by the late 1940's, required the additional leadership of Georg's son Paul Mueller. Paul then became C.E.O.

By the mid 1960's, increasing sales in the U.S. caused GMN to establish a sales division. GMN-Georg Mueller of America was headquartered in Schaumburg, Illinois. GMN (America) sales have grown every year.

In 1987, GMN acquired Whitnon Spindle which is located in Farmington, Connecticut. With the additional products of high speed, super high precision, grinding and milling spindles, GMN (America) sales have soared.

In 1988 a decision was made to build the first ball bearing manufacturing facility in the U.S. The U.S. market requires more #6203 bearings than could be produced in Nurnberg. Rockford, Illinois was chosen and the ultra modern, 40,000 sq. ft. mass producing facility began manufacturing the 6203 bearing, in several executions, in the fall of 1989. The production capacity is in excess of one million bearings per month.

GMN-Georg Mueller of America currently employs 150 at three locations, while the parent company, GMN (Nurnberg), employs 1,600 at six locations. The economic outlook for growth at GMN is extremely optimistic for the 1990's. □

Insurance coverage remains an essential production factor in modern industry. It results in a reduction of potential risks and allows for professional risk management. The larger and more diversified a modern corporation becomes, the more necessary it is to develop policies which are tailored to the specific requirements of the individual enterprise. Technological progress leading to an increase and a greater concentration of values, as well as changing patterns of risk, compel today's enterprises to constantly adapt their insurance protection to meet these complex and ever-growing risks. Furthermore, corporate structures and activities in many industries have assumed an international dimension. This situation requires professional risk management, as well as an insurer with underwriting expertise and an international network.

GERLING-KONZERN has been a specialized insurer of industrial risks for more than eighty years, breaking ground for others in this field. Because of its innovative power, Gerling-Konzern today is a recognized expert insurer of industrial risks, not only in Germany, but worldwide. It provides solutions to all coverage problems of industry and entrepreneurs. With 16 insurance and reinsurance companies, the Group operates worldwide and is represented in 20 countries. Collectively, the Group reported for 1988 a gross premium of DM 7.4 billion (U.S. $4.2 billion), invested assets of DM 20.2 billion (U.S. $11.3 billion) and a total of 9,100 employees.

For more than thirty years the Group has expanded its foreign activities as a primary insurance company and as a reinsurer in all major industrialized countries. Its international structure makes the Gerling organization particularly suitable for the handling of insurance needs of companies with international activities. Local experts in foreign subsidiaries and service companies are familiar with the requirements and customs of the respective markets.

The primary insurance needs of our U.S. customers are managed by:

Gerling America Insurance Company
717 Fifth Avenue
New York, NY 10022

Please contact Mr. Lothar Riedle, Vice President, for further information. □

Gradmann & Holler GmbH
Insurance Brokers

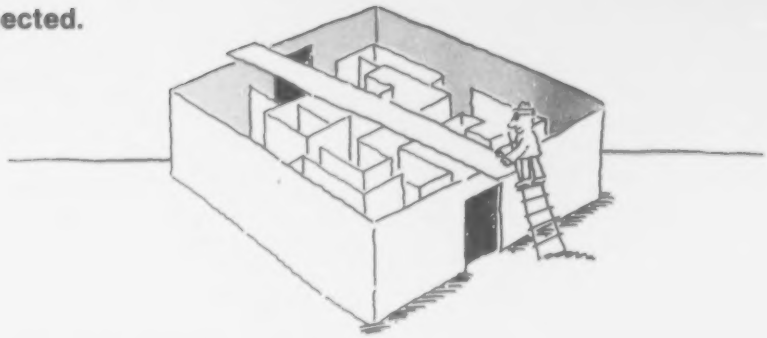
THE GRADMANN & HOLLER GROUP with over 750 employees worldwide, is one of the largest service organizations of its kind in Germany. The services provided by the Group include risk management, direct and reinsurance broking as well as pension and cash management consulting.

Established in 1926, the Group maintains fully operative offices staffed with internationally trained personnel in all industrial and commercial centers in Germany, Austria and Switzerland. It is considered to be one of the leading insurance brokers in Europe.

Gradmann & Holler services the insurances of subsidiaries of its clients in more than 80 countries of the world. This is done through its owned and associated companies, together with its affiliation with the global network of Marsh & McLennan, Inc., New York, the largest industrial insurance brokers in the United States and worldwide.

Gradmann & Holler provides professional insurance broking services to its many clients all over the United States through the offices of Marsh & McLennan in the U.S. This is being coordinated by a German Desk staffed with Gradmann & Holler's representative within the International Department of Marsh

Expect the unexpected.



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HLT

HTL is the Development Organization of the Federal State of Hessen, the most centrally located State in the Federal Republic of Germany. HTL Group, active since 1951, is a non-profit organization comprised of two companies which operate under joint management under one and the same roof in Wiesbaden, the state capital.

The two companies are the Industrial Development and Trust Company Hessen, in short HLT-Bank, which is recognized as a bank with a special function. The bank handles all public incentives to investors on behalf of the government. The second firm, HLT Company for Research Planning and Development, carries out detailed regional and economic research and is active in city and regional planning, city reconstruction and development of industrial sites and industrial estates.

HLT is a specialized partner for private companies planning to set up an enterprise in the dynamic Hessian economy. HLT provides comprehensive support to the investor, from the planning stage through completion. HLT offers expert guidance during the site selection decision phase and provides the investor with all economic data required for selecting the most suitable location and advises on all questions of financing the project.

HLT provides information about convention buildings ready for occupancy, warehouses and office space throughout Hessen and organizes inspection tours of locations and facilities. The HLT offers support during the settlement process with direct contacts with various institutions and government officials needed to expedite and facilitate completion. We advise established companies and assist them by giving information on possible suppliers in Hessen, and we help arrange joint ventures and cooperation agreements. When a firm has located its operations in Hessen, the HLT is a valuable partner for help and information for any questions or problems that may arise. □

HANIEL

Duisburg-based FRANZ HANIEL & CIE., GmbH is a service and trading company that operates internationally, primarily in Europe, the United States, and the Far East. The firm is divided into 10 divisions that operate autonomously in their markets; the company's consolidated balance sheet comprises 245 separate businesses that employ approximately 21,000 people.

233 years after its founding, Haniel operates around the globe in various businesses. Among others: the procurement, manufacture and trade in construction materials; barge and coastal shipping, trucking, trade; recycling and refining of raw materials for the specialty steel industry; technical services for industrial pollution control; sanitary equipment; pharmaceutical wholesale; mail order sales and international trade; express delivery systems; and food wholesale and retail trade in the United States.

Sales in 1988 amounted to DM 12.7 billion, DM 2.3 billion above 1987 results. Net after taxes rose 62 percent to DM 134 million (1987: DM 83 million). Cash flow expanded robustly, growing 36 percent to DM 354 million. After a dividend payout of 12 percent (1987: 10 percent) from its DM 200 million capital base, the firm's profit traditionally is used to strengthen its equity capital base (1988: 32 percent, balance sheet total DM 3.4 billion) and for reinvestment in the firm.

In the current business year, Haniel has budgeted over DM 600 million for investment with a view toward systematically supporting an expansion of its markets, at home and abroad, in its service and trading businesses. □

Hapag-Lloyd

This year HAPAG-LLOYD AG, one of the world's largest shipping companies, celebrates its 20th Anniversary. The Hamburg Bremen-based company is represented in the United States by its North American subsidiary, Hapag-Lloyd (America) Inc., New York City.

Though they are indeed proud to have completed 20 years of service, the heritage at Hapag-Lloyd goes back to the days of sailing ships. And as for celebrations, both the Hamburg-American Line (HAPAG), founded in 1847, and North German Lloyd, founded in 1857, have each separately toasted milestone 50 and 100 year anniversaries.

But the sum for these twenty years as a joint Hapag-Lloyd entity adds up to much more than twenty years of success. The strategic consolidation and streamlining at the beginning of the 1970's was followed by another belt-tightening and fat trimming program in the early 80's. The events and achievements of each of the last twenty years have brought Hapag-Lloyd closer to its goal: to provide the most advanced network of transport services on the sea, land, and air. . .and to do so on a sound financial basis.

With its heritage on the sea, the birth of the new company came at a time when containerization was also in its infancy. Indeed, the merger of Hapag and North German Lloyd was brought about as a result of the high capital investment needed to convert to containerization. Both Hapag-Lloyd and containerization grew together to be strong and healthy in the past 20 years.

Before the 70's even began, Hapag and North German Lloyd had engaged in the first fully containerized service on trans Atlantic routes under the trade name Hapag-Lloyd Container Line. By 1978, the first generation containerships of the late 1960's yielded to newer, more modern 1758 teu vessels to meet the demand for additional cargo space. Then in 1985 these four vessels were jumboized by adding a mid-section, thereby increasing their capacity to 2486 teu's. Hapag-Lloyd's containership fleet, which began as four in 1968 today stands at 19.

Hapag-Lloyd travel organization, called Hapag-Lloyd Reisebuero, today operates with 77 travel agencies throughout the Federal Republic of Germany, West Berlin, Austria, Luxemburg, Switzerland and the United Kingdom. All aspects of corporate and private travel services are offered. Growth of this sector of North America is reflected in the establishment of Hapag-Lloyd Travel (America) Inc., with travel agencies in New York, Atlanta, Charlotte, Chicago, Hackensack, N.J., Philadelphia and Great Neck, Long Island, N.Y.

To meet the demand for larger cruises and more exotic destinations, Hapag-Lloyd introduced a new "Europa" in 1979. The old Europa, which had served more than 170,000 passengers for over a decade, was phased out of operation.

On the land, Hapag-Lloyd has made great inroads since 1970. Where overland container movement was in its early stages at the beginning of the decade, Hapag-Lloyd has made true door-to-door service a reality. Through the effective use of container pools, shipping agents and inland container coordinators, today Hapag-Lloyd has containers totalling around 100,000 TEU's in operation worldwide.

Throughout the past 20 years in Europe, Deutscher Container-Dienst (DCD) has coordinated inland container movements by truck and rail.

In the late 1980's, in the United States, Hapag-Lloyd has surely broadened the already wide horizons that its predecessor companies had established. □

Henkel

HENKEL CORP., the Specialist in Applied Chemistry, provides chemicals and services to manufacturers in almost every industrial sector so their products can serve consumers better.

Major product groups and services include: oleochemicals and derivatives, such as fatty acids, glycerine, surfactants, lanolin and lanolin derivatives; pretreatment of metals and other materials; synthetic lubricants; paint, coating and plastic additives; plasticizers, polymers, and epoxy curing agents; textile, leather and paper chemicals; natural-source vitamin E; and ozone technology.

Major industries served include automotive, appliances, furniture, construction, detergents and cleaning products, personal care, pharmaceuticals, graphic arts and printing, leather, paper, packaging, paints, coatings and adhesives, plastics, textiles, tires, waste treatment and water purification.

Rapid growth has marked Henkel Corp.'s development. A program of strategic acquisitions, including Quantum Chemicals's Emery Div., Ford's Parker Chemical Co., and Diamond Shamrock's Process Chemicals Div. increased Henkel Corp.'s presence in the U.S. market. Now, the company is expanding capacity with a number of key investments, such as a $120 million oleochemical complex and a $10 million chlorosulfation plant. Sales for 1990 are forecast to exceed $1 billion.

In important technologies, Henkel Corp. is an industry leader, as exemplified by its leading position in oleochemicals, which use natural vegetable oils and animal fats as raw materials. Henkel manufactures a new class of surfactants, under the trademark of APG®, which are nontoxic and biodegradable, for use in Henkel's cosmetics, detergents, and industrial and household cleaning products. Henkel ozone technology offers new solutions for waste treatment and water purification. And Henkel is the leading developer of metal surface pre-treatment methods that are more efficient and environmentally sound.

Henkel Corp., based in Gulph Mills, PA, is a U.S. subsidiary of Henkel KGaA, headquartered at Duesseldorf, West Germany. With 160 companies in 55 countries, the Henkel Group is a leading manufacturer of consumer personal-care and cleaning products, adhesives and oleochemicals. In all, the Henkel Group has a product line of about 8,000 products. The Henkel Group is a family-owned business with one-third of its shares publicly traded as non-voting, preferred shares. The Henkel Group has sales of about $6 billion. □

Helaba Frankfurt
Hessische Landesbank -Girozentrale

HELABA FRANKFURT ranks among Germany's major banks with total business volume in excess of DM 76 billion at the end of 1988. Headquartered in Frankfurt, Germany's financial center, the Bank is one of the largest issuers of bank bonds and notes with a total of more than DM 32 billion outstanding. Helaba's Eurobonds have been rated AAA/Aaa by Standard & Poor's Corporation and Moody's Investors Services, its US-Commercial Paper as well as its Euro-CD-program have been rated A1+P-1.

The Bank concentrates on wholesale finan-

cial services offering comprehensive banking facilities for multinational corporations, central banks, public sector entities, and other financial institutions.

Helaba Frankfurt has branch offices in London, New York and Grand Cayman and wholly owned subsidiaries in Luxembourg and Amsterdam (Helaba Finance B.V., Amsterdam). The bank's international service facilities include:

- International financing with special emphasis on medium to long-term fixed-rate loans as well as short and medium-term Euroloans to German customers abroad and multinational corporations in Germany.
- Export financing, including long to medium-term export financing on fixed interest rates, short-term import and export financing on domestic and Euromarket rates as well as *à forfait* transactions.
- Foreign commercial business, comprising international payments, clean and documentary collections, letters of credit, letters of guarantee and foreign trade financing.
- International capital market activities including Eurobond issues, lead-management of bond issues of the state of Hesse, participation in national and international stock and bond syndicates, trading bonds and notes, equities brokerage service, including investment counselling for national and international investors.
- Marketmaking in spot and forward Foreign Exchange for its worldwide correspondents, dealing in Eurocurrency deposits, Future Rate Agreements, Options and Interest Rate Futures, Currency and Interest Rate Swaps.
- A full advisory service for the Bank's corporate customers and the Hessian Savings Banks in all Foreign Exchange and Eurocurrency deposit related products. □

HILLE & MUELLER is one of the leading cold rolling mills in the world. The company employs more than 2,200 people in 6 works in Germany and in the United States of America. Among the regular customers in many parts of the world are companies of different industrial branches, such as household industry, motorcar industry, electrical industry or construction industry.

Our range of products is, in the first instance, determined by cold rolled steel and by cold rolled steel strip electrolytically plated or clad with non-ferrous metals. The non-ferrous metals we are using are nickel, chromium, brass, copper, tombac, zinc and aluminium.

The aim of the company is to produce quality of the highest demands. Hille & Mueller and the associated companies are well known as producers for cold rolled steel strip and electrolytically plated cold rolled steel strip with bright glossy surfaces and closest tolerances. The application of our materials helps to save heavy expenditure on piece-part plating or purchase of solid non-ferrous metals. During the almost 100 years of its existence, many new products have been developed by our company. The know-how collected during that time and the constant increasing of our production programme provide the answers to the problems and requirements of the metal working industries.

Within Hille & Mueller innovation teams up with tradition. The company was founded

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in Großchoenau/Sudentenland, where, in 1885 the first mill was established. Already in 1895 the founders of the company, in the previous Porschdorf works near Dresden, successfully performed surface finish of sheets. Another mill was founded in 1905 in Duesseldorf-Reisholz, where today the headquarters of the group is located.

Another important date within company history is the year 1974, when Hille & Mueller extended their field of operation over the Atlantic and took over Rafferty-Brown, Waterbury, Connecticut, USA. This proved to be an important step. Only one year later the Thomas Steel Strip Corporation, Warren, Ohio was acquired, which is a mill with a product and market structure similar to that of the main works.

The purchase of the Westfalia GmbH in Hilchenbach in 1976 was made in an effort for diversification and in order to open a door into metal working. The Trierer Walzwerk GmbH, Trier, which primarily is producing clad cold rolled steel strip with non-ferrous metals, was bought in 1982, completing our line of products.

With works in Germany and in the USA, the Hille & Mueller organization possesses the most modern production facilities. A worldwide sales network assures direct presence in the most important markets. □

Hoechst Celanese

Hoechst

HOECHST CELANESE CORPORATION, Route 202-206, Box 250, Somerville, NJ, 08876, (201-231-2000) is a wholly owned subsidiary of Hoechst AG, and it ranks as the largest and fastest-growing subsidiary in the Hoechst world group of companies.

Hoechst Celanese was formed in February, 1987 with the merger of American Hoechst Corporation of Somerville, and Celanese Corporation of New York. American Hoechst began business in the U.S. in 1953. Celanese dates from 1918.

In 1988, Hoechst Celanese had earnings of $250 million on net sales of $5.6 billion.

Hoechst Celanese is ranked among the top 100 U.S. industrial companies by *Fortune* magazine. It is ranked fifth among U.S. chemical companies.

Hoechst Celanese produces a wide range of products: commodity and fine chemicals; man-made fibers for textiles and technical applications; plastics and film for specialty, packaging and information uses; pharmaceuticals, animal-health and agricultural-control products.

The company operates plants, terminals and business offices at three dozen sites in the U.S., from Rhode Island to Texas.

Hoechst Celanese holds a 56.2 percent interest in Celanese Canada, Inc., which operates chemical, textile and technical fibers plants.

The company's principal research facilities are located in Summit, NJ, Corpus Christi, TX, and Charlotte, NC. Hoechst Celanese spends about $200 million each year on research. Supporting this U.S. research, the Hoechst group of companies worldwide spends more than a billion dollars a year on research.

Hoechst Celanese businesses produce such materials as polyester staple and filament fibers used for apparel, carpeting, and home furnishings; technical fibers are used in such applications as cigarette filters, tire cord, and industrial fabric. Hoechst Celanese makes wearable fabrics with flame-resistant qualities, and a geotextile applied in various construction applications.

The engineering plastics business makes various plastics that are found in the home, in autos and in a wide variety of consumer products that require durability and safety. Hoechst Celanese film is used in packaging and computer applications.

Hoechst Celanese Life Sciences Group manages Hoechst-Roussel Pharmaceuticals, Inc., which produces government-approved compounds that have made significant contributions to medical progress in the areas of diabetes and blood circulation. Prescription drugs include: Lasix® diuretic; Topicort® topical corticosteroid cream; Streptase® fibrinolytic agent for treating heart-attack victims; Claforan® antibiotic; Diabeta®, oral hypoglycemic agent; and Trental®, an agent that improves arterial blood flow. □

HOESCH

HOESCH was founded in 1871 as an iron and steel mill. Today Hoesch AG is a major force in the world of steel manufacturing and coating, the manufacturing of industrial equipment, trading and service operations, automation and systems engineering. One of West Germany's leading companies, its turnover in 1988 totalled DM 14.6 billion. Its workforce now totals 48,700. The company exports to all parts of the world.

We support free world trade—as the world is our market: This commitment is a principle of our company philosophy.

Within the framework of our international strategy, we own a broadly based network of manufacturing plants and trading companies, both at home and abroad—such as in the United States of America.

Rotek Inc., Aurora, Ohio is a manufacturer of bearings, seamless rolled rings and carriage parts, as well as closed die forgings, which are sold to equipment manufacturers of cranes, excavators, dredgers, railway turntables, rotary furnaces, material handling equipment and similar heavy-duty equipment.

Hoesch Tubular Products Co., Baytown, Texas is engaged in the upsetting, heat treating and threading of oil country tubular goods. The plain end tubular goods in sizes 2⅜" through 13⅜" are manufactured at the Hoesch pipe mill in Germany, imported into the U.S., finished at Hoesch Tubular Products and sold in the U.S. for oil drilling.

Hoesch America, Inc., Atlanta, Georgia has played a significant role in international trade since 1957. The delivery program consists of a variety of steel products, such as hot and cold rolled flat products, structurals, pipe and tubing, as well as manufactured goods from our processing divisions. Part of Hoesch America's world wide trading activities includes export from the USA.

Hoesch—a group of companies operating worldwide. □

PHILIPP HOLZMANN

Aktiengesellschaft

PHILIPP HOLZMANN AG ranks among the world's leading international construction companies. Headquartered in Germany's key business center, Frankfurt am Main, the Holzmann company provides diversified services to every construction segment in the international marketplace. From planning through construction completion and project start-up, these services include civil, structural and mechanical work as well as the provision of materials and equipment for project construction and installations.

Throughout its 140-year history, Philipp Holzmann AG has undertaken numerous significant projects that have proven its capability to perform successfully in all areas of planning and construction. To meet the challenges of the changing construction market in recent years, Holzmann continues its emphasis on regional and field activities and offers special services in the areas of project development, financing and specialty construction.

The company's domestic and foreign subsidiaries, too, are active in providing a variety of construction and construction-related

services. Holzmann has thirty subsidiaries in Europe alone, providing a range of planning and construction services to Germany and neighboring countries. To serve Africa and Asia, the company's Central Foreign Department is staffed to handle the special requirements of these locations.

In the USA, the company is represented by Philipp Holzmann USA, Ltd. and its affliated companies, Jones Group, Inc. of Charlotte, North Carolina, and Lockwood Greene Engineers, Inc. of Spartanburg, South Carolina, and their respective subsidiaries. These companies accounted for $1.5 billion of Holzmann's DM 5.8 billion revenues in 1988.

The Jones Group companies include J.A. Jones Construction Company and Metric Constructors, Inc., both general contracting firms. Along with the other Jones Group subsidiaries, they provide a complete range of construction services as well as operation, maintenance and repair of projects. Lockwood Greene specializes in the engineering and design of industrial plants and commercial facilities.

Backed by extensive experience in all areas of construction and engineering with organizations that efficiently and effectively meet the changing requirements of today's construction market, Philipp Holzmann AG and its subsidiaries offer their services as competent partners with clients on projects located anywhere in the world. □

hüls

HUELS AG, one of the largest chemical companies in the Federal Republic of Germany, is a major manufacturer of basic chemicals, organic chemicals, thermoplastics, elastomers, silanes, and raw materials for surface coatings. Huels broad diversification, high standards of quality, and intensive research and development have yielded new markets for a growing range of special products for high performance applications.

At year-end 1988, the Huels Group had more than 27,000 employees and sales of 8.2 billion DM. Huels' products are exported to 110 countries through a worldwide sales network. Exports account for 55% of sales.

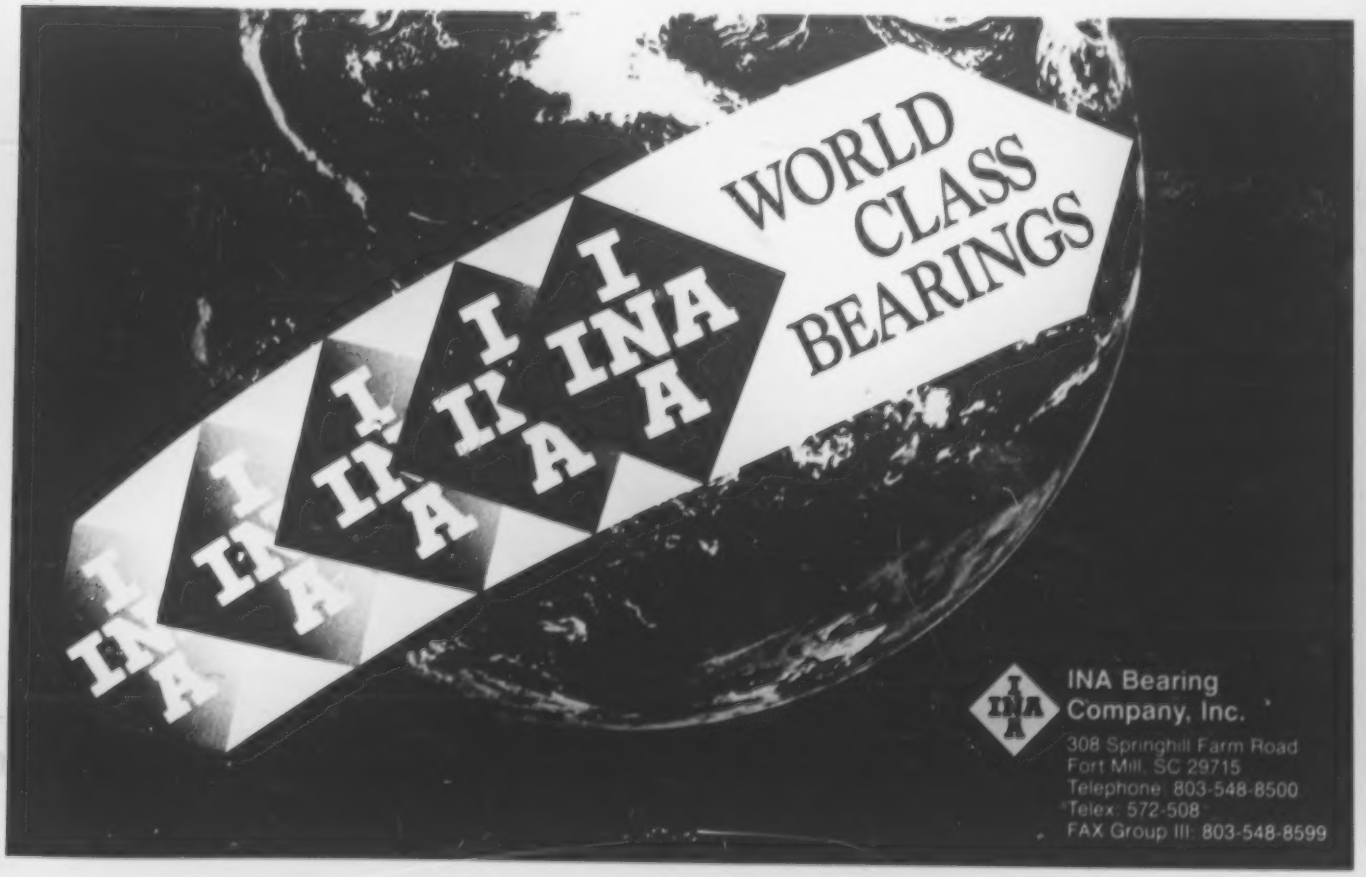
In North America, Huels' chemical business is conducted by Huels America Inc., which is 100% owned by Huels AG. Huels America employs 1,400 people at 14 plants throughout the United States and Canada. Annual revenues are expected to be $450 million in 1989. The company serves numerous markets with a broad line of domestically produced chemicals, coatings additives and colorants, extruded and calendered plastics, as well as performance products imported from its parent company.

In 1989, Huels strengthened its existing silicon wafer position through the acquisition of Monsanto's silicon wafer business. The existing business and the new acquisition were consolidated into MEMC Electronic Materials Inc., headquartered in St. Peters, Missouri.

Huels AG is a 100% owned subsidiary of VEBA AG, one of the leading companies in the Federal Republic of Germany. VEBA's diversified holdings are primarily in the areas of energy generation, oil, trading and transportation, and chemicals. □

INA

INA BEARING COMPANY, INC. is part of a worldwide organization known for the



quality and advanced technology of its needle roller and other anti-friction bearings.

From its small beginnings in 1946, the company has grown rapidly by pioneering scores of new products. INA Needle Roller Bearings have provided designers in many industries, particularly the automotive and machine tool industries, with a solution to their problems.

Over the years, the original range of INA Needle Bearings has been extended to encompass a much wider variety of rolling bearings. These include bearings for both light and heavy duty applications, as well as bearings for rotary and linear motion.

Today, more than 14,000 INA employees throughout the world produce over 10,000 different types of rolling bearings, of which a high number are made to customers' individual requirements. Specifically, our product line includes a large variety of unit cages, shell bearings, needle roller bearings—radial and thrust, cylindrical roller bearing—radial and thrust, combination bearings, precision ground bearings, ball bearings, linear motion bearings and slewing rings.

INA Rolling Bearings are manufactured in 24 plants worldwide. A network of 20 INA companies and 28 agencies provide reliable service and excellent communication with our customers.

All worldwide market research, together with production and application experience, is collated at the parent company in Herzogenaurach near Nuremberg. Thus, a continuous interchange results between the various INA locations and ensures that the latest technology is shared worldwide. This is reflected in the advanced state of the art of all INA products.

In the United States, INA Bearing Company, Inc. was incorporated in September 1969. Today, INA operates five manufacturing plants in South Carolina. Corporate Offices are located just outside Charlotte, North Carolina, in Fort Mill, South Carolina. INA is the second largest needle bearing manufacturer in the United States. □

JAUCH & HÜBENER
INSURANCE BROKERS

JAUCH & HUEBENER, founded in 1919 in Hamburg, today ranks among the leading insurance brokers in Europe. The privately held partnership has more than 800 employees in Germany, Austria and Switzerland.

Apart from the employees of the international departments in Hamburg, Muelheim and Frankfurt, Jauch & Huebener has German representatives in New York, Singapore, Sao Paulo and Caracas.

The international departments are staffed with specially trained employees, all of whom have gained experience overseas.

Jauch & Huebener is a member of UNISON, a worldwide network of independent insurance brokers. In the United States Jauch & Huebener with its representative works through Johnson & Higgins, one of the largest insurance brokers, with 50 offices throughout this country.

Johnson & Higgins has established a team within the New York office focussing on the specialized requirements of German investors throughout the United States. Today Johnson & Higgins together with Jauch & Huebener services in excess of 100 German subsidiaries in the United States.

Jauch & Huebener's representative in New York, Mr. Klaus Borchert, complements the activities of this team and can be reached at:

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KEMPINSKI
HOTELS

In response to rising international demand for Grand Hotels in the great European tradition, six new KEMPINSKIs will have opened in key cities on three continents—the start of a global expansion program that envisages Kempinski Hotels throughout the world.

The new members of the Kempinski family (in Buenos Aires, Chicago, Dallas, Istanbul, Santiago de Chile and Toronto) now cater to a clientele which treasures the classic flair and gracious Old World hospitality of the four great Kempinski Hotels in Germany. And which welcomes having the charm of bygone days linked with contemporary comforts and amenities in prime locations.

In the heart of the Argentine capital, life *à la Kempinski* now awaits the traveler at the *Hotel Libertador Kempinski Buenos Aires*.

Bordering the exclusive *Gold Coast* on Lake Michigan, the *Hotel 21 East Kempinski Chicago* welcomes discerning guests.

At the *Grand Kempinski Dallas*, travelers to the commercial capital of the American Southwest find a home away from home combining continental luxury and lifestyle.

The only Grand Hotel directly on the Bosporus—the *Ciragan Palace Hotel Kempinski Istanbul*—will open its doors in Summer 1990, linked with the reconstructed Ottoman "Palace of the Torches" ("Ciragan" in Turkish).

Enjoying a premiere location at the very center of Chile's capital is the exclusive *Hotel Plaza San Francisco Kempinski Santiago*, featuring 100 luxurious rooms and exceptional suites.

Meticulous attention to detail and consummate European style distinguish the *Sutton Place Hotel Kempinski Toronto*, prominently situated in the downtown center.

Long popular with American tourists and business people alike is *Munich's Vier Jahreszeiten Hotel*. Staying here, right in the heart of King Ludwig II's domain between the Hofbraeuhaus and the Residenz is an American dream.

In *Berlin*, Germany's leading cultural center, the prestige address is the *Bristol Hotel Kempinski* on the Kurfuerstendamm, the city's showpiece boulevard—long the No. 1 choice of show-biz celebrities and political dignitaries from the U.S.A.

Hamburg's Atlantic Hotel Kempinski debuted in 1909 for passengers of the great transatlantic luxury liners. Now travelers from the States are rediscovering Hamburg—as the modern-day continental capital of opera and ballet, as well as the gateway to Scandinavia.

The *Hotel Gravenbruch Kempinski Frankfurt* is the one with the oldest heritage. A one-time manor house, Gravenbruch was first mentioned in official records of 1486—six years before Columbus discovered America. Only minutes from Frankfurt Airport and with easy access to *Romantic Germany's* top tourist attractions, this historic Kempinski has preserved the casual, relaxed atmosphere of a fine old country estate.

Added convenience: as Lufthansa-affiliates, all Kempinski Hotels can be booked together with the flight at any Lufthansa German Airlines reservation point. Or through Kempinski's New York office at 1640 Hempstead Turnpike, East Meadow, NY 11554 (Tel.: 516-794-2670/2671 or (800)426-3135 toll free).

Welcome to Kempinski. □

Leitner

LEITNER designs and manufactures display systems for exhibitions, merchandising and interior decorating applications with true architectural principles to guide the design stages. These principles are reflectel in the function of all Leitner exhibit systens.

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This outstanding dedication to principle produces a simple design concept with emphasis on the essential element. From the most extensive structure to the most discrete filigree shelving incorporates this philosophy.

Leitner GmbH sets exceedingly high standards demanding the dynamics of functionality in all of its manufactured exhibit systems. Leitner exhibit systems are planned and engineered with quality that is long lasting and uncommon in the industry. These features have been well acknowledged internationally in the design community, as in 1966, Mr. Burkhardt Leitner, Founder and President, was presented the Busse Longlife Design Award and the "Formbestandig" (stability of form) award from the Stuttgart Center for Design.

Leitner is the name for modular design.

Leitner exhibit systems are capable of fading into the background or forming a dynamic focus by themselves.

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KOH-I-NOOR RAPIDOGRAPH®

rotring

KOH-I-NOOR has its origins in a firm called L & C Hardtmuth, established in 1790 as a provider of high-quality graphite products for artists and designers. The first wood-cased precision-graded pencil produced by L & C Hardtmuth was called Koh-I-Noor, and was introduced in America at the 1893 Columbian Exposition, a celebration in Chicago of the 400th Anniversary of the discovery of America in 1492 by Christopher Columbus.

Today, Koh-I-Noor, with headquarters in Bloomsbury, NJ, is a major manufacturer and distributor of products for technical drafting, plotting, writing and graphic arts for design engineers and artists throughout the United States and Canada.

In 1984, Koh-I-Noor purchased outstanding shares of its stock held by a Hannover, West German firm, making the parent company Rotring-Werke, Riepe KG, of Hamburg, Federal Republic of Germany, the sole owner of Koh-I-Noor Rapidograph, Inc., and its subsidiaries and divisions.

Rotring-Werke, Riepe KG, was founded in 1928, and is the logical parent for Koh-I-Noor since the R&D Divisions of the two companies have worked in close alliance together for many years, even before the merger.

Rotring markets finest-grade products for the design-engineering and graphic-arts markets in more than 120 countries around the world, and now in North America through Koh-I-Noor's distribution network. The firm manufactures in new facilities in Hamburg, producing a full range of technical pens and writing instruments, templates, triangles, electronically controlled lettering and plotting equipment, and other precision products for its specialized markets. □

KRUPP

Renowned worldwide for excellence in many spheres of industrial activity, the FRIED. KRUPP GmbH group of companies belongs to the 15 largest industrial concerns in the Federal Republic of Germany. As a German partner in American growth since 1948, Krupp has a longstanding commitment to serving the U.S. market.

Krupp operates many subsidiary companies in the USA:

- Krupp Industries, Inc., headquartered in Pittsburgh, Pennsylvania, has offices in Baltimore, Maryland, and Houston, Pennsylvania which offer a wide range of plant and equipment including: mobile cranes and drilling, mining equipment, material handling systems, crushers, and mechanical parking systems.
- Krupp Atlas Elektronik (KAE) Division, located in Clark, New Jersey, serves the

marine market with radar and collision avoidance systems, shiphandling simulators and echosounders. The KAE Division also offers highly specialized hydrographic survey and research systems and advanced electronics for the fishing industry.

- Krupp Machinery Corporation, located in Edison, New Jersey, offers advanced extrusion blow molding plastic machinery. In addition, its Rubber Division, located in Kent, Ohio, supplies state-of-the-art rubber and tire machinery. Another division, Krupp Corporplast Service Agency USA, located in Alexandria, Virginia, offers advanced stretch blow molding plastics machinery for PET containers.
- Polysius Corporation of Atlanta, Georgia offers the latest technology available to the cement and mining industries in the North American Market.
- Krupp Wilputte Corporation, located in Pittsburgh, Pennsylvania, has a wealth of experience in the design and construction of coke-oven plants, high-temperature hot blast stoves, sinter plant, coal by-product and gas treatment facilities, auxiliary machinery, gasification plant for solid and liquid fuels, and pollution control equipment.
- Krupp MaK Diesel Inc., located in Glenview, Illinois, markets the product lines of Krupp MaK, Kiel, West Germany: mainly marine diesel engines and diesel generating sets.
- Werner & Pfleiderer Corporation, located in Ramsey, New Jersey, offers the American market machines, systems and complete plants for:

  Plastics technology
  - —for the continuous production, compounding and pelletizing of all thermoplastic and thermosetting materials.
  - —Rubber mixing and processing technology
  - —for continuous and discontinuous mixing and kneading processes and the production of moldings.

  Food extrusion
  - —for the production of snacks, cereals, licorice and fruit gums.
- Krupp Widia Corporation, located in Deerfield, Illinois, markets Widia tungsten carbide inserts and tool holders for metal cutting applications. In addition, it's Urbana, Ohio subsidiary, Ultra-Met, manufactures a complete line of tungsten carbide blankes which are marketed to fabricators. Another subsidiary, Dentex Research Development Corporation, New York, with its Division Neoloy Products, Inc., Posen, Illinois, makes dental products under the umbrella of Krupp Medizintechnik, Essen, West Germany.
- Krupp Steel Products, Inc., located in White Plains, New York, with branch in Houston, offers a complete range of carbon, alloy and stainless steel sheets, plates and sections. Forgings are offered in close die and open die to various US industries.

Together these operating companies in the United States have full access to all products and services provided by Fried. Krupp GmbH, and more than 100 subsidiaries worldwide, plus the advantages of local product specialists, service and part technicians, and experienced project management personnel. □

Lufthansa

LUFTHANSA GERMAN AIRLINES achieved a pre-tax profit of 87 million German marks ($44.6 million) for the first half of 1989, a 6.1 percent increase over the same period of 1988. Total revenue climbed to 5.47 billion marks ($2.8 billion), an increase of 12.8 percent.

Between January and June, Lufthansa transported close to 9.9 million passengers, an increase of 5.1 percent. Cargo recorded the largest growth, up 14 percent to 426,000 metric tons and mail was up 2.5 percent to 45,290 metric tons.

Lufthansa posted a 15 percent increase in net income in 1988, and the airline is on target for another profitable year for 1989. The airline's pre-tax profit rose to DM 249 million ($143 million) net income was DM 99 million ($56.8 million). Group pre-tax profit rose 16 percent to 241 million marks ($138.5 million), but a sharp rise in taxes and certain accounting adjustments led to a decline in the group's net profit to 82 million marks ($47 million) from DM 89 million in the previous year.

Lufthansa carried 19.4 million passengers and 826,000 metric tons of cargo in 1988 maintaining its number one position in the international passenger traffic. The airline's revenue load factor for the year was 66.8 percent and the seat load factor was 65.9 percent.

Capital expenditures in 1988 exceeded DM 2 billion for the first time. Two thirds of the DM 2.2 billion Lufthansa invested went to prepayment for new aircraft.

Lufthansa is taking delivery of four of the 15 Boeing 747-400 aircraft it has ordered this year. In his Executive Board report, Chairman Heinz Ruhnau said a major fleet renewal program will make 65 percent of Lufthansa's aircraft less than four years old by 1991. The first Airbus A320 will join Lufthansa's fleet this November; the Airbus A340 will begin operating in 1992 and the A321 Stretch jet in 1994.

The company's corporate strategy for the nineties is to sustain Lufthansa's reputation as a quality airline with a high level of productivity. Lufthansa will retain its identity as a German carrier in a wider Europe and in increasingly globalized air traffic markets.

Lufthansa's chief executive also underlined Lufthansa's commitment to environmental protection, noting that the airline had cut fuel consumption by half over the past 20 years. In the future, the airline intends to encourage or initiate research into the effects of trace gases at high altitude.

This year Lufthansa is increasing its basic capital by DM 304 million to DM 1.52 billion via an issue of common shares to company shareholders at a ratio of one for four. The share issue (6.08 million shares totalling 942 million marks) will increase Lufthansa's own capital in preparation for the growth of commercial aviation that is expected for the 1990's. Because the Federal Government will not be participating in the capital increase, its holding in the company will drop from 65 percent to about 52 percent. Shares not purchased by the Government will be placed outside the stock market by a group of German banks. □

MAN AG

MAN AKTIENGESELLSCHAFT, Munich, Federal Republic of Germany, is the holding company of the MAN Group, which is one of the leading European suppliers of capital goods. Group annual sales are DM 16,882 million; exports account for more than 60 percent of this sum. The MAN Group of companies employs 67,000 people.

The MAN Group was formed as a result of a re-structuring of the former GHH Group. In June 1986, M.A.N. Maschinenfabrik Augsburg-Nuernberg AG, Augsburg merged with the Gutehoffnungshuette Aktienverein AG (GHH, Oberhausen,) to form the new holding company MAN Aktiengesellschaft, based in Munich.

Both Gutehoffnungshuette and Maschinenfabrik Augsburg-Nuernberg can look back on a long industrial history: GHH grew out of the first iron works in the Ruhr area, the economic center of Germany, which started oper-

ating under the name of St. Antony at Oberhausen in 1758. M.A.N. was founded in Augsburg in 1840 as a mechanical engineering company. In 1921 a majority share was acquired in M.A.N. by GHH. Over the years, M.A.N. assumed, an increasingly dominant role within the Group. The logical consequence of this long-term development was the merger of the two companies in 1986.

The center of the new grouping under the management of MAN Aktiengesellschaft is made up of the following companies with their numerous associated companies in Germany and abroad forming what is known as the Core Group: MAN Nutzfahrzeuge AG, Munich; Ferrostaal AG, Essen; MAN Gutehoffnungshuette AG, Oberhausen; MAN Roland Druckmaschinen AG, Offenbach; MAN B&W Diesel AG, Augsburg; MAN Technologie AG, Munich; RENK Aktiengesellschaft, Augsburg; Deggendorfer Werft und Eisenbau GmbH, Deggendorf.

In addition, MAN Aktiengesellschaft has major shareholdings in the following Group Companies: SMS Schloemann-Siemag AG, Duesseldorf und Hilchenbach; KM-kabelmetal AG, Osnabrueck; Schwaebische Huettenwerke GmbH, Aalen-Wasseralfingen.

The MAN Group member companies operate world-wide in machinery and plant construction, commercial vehicles and trading sectors. High-tech products and services are geared to satisfy the demands of the printing and communications industries, transport engineering and materials handling, chemical and petrochemical industries, power generation sector, and basic industries. □

Melitta®

The MELITTA Group, as we know it today, owes its origins to the inspired invention of a housewife in the city of Dresden, Germany. In 1908, Frau Melitta Bentz was granted a patent for a new method of brewing fresh coffee using paper filters. Frau Bentz and her husband, Hugo, set up a small family business to manufacture the original "Melitta" filter papers. The business expanded rapidly, particularly after the First World War. 1925 saw the appearance of the first pack with the red and green colors that have remained the unmistakable hallmark of Melitta. In the following years, the design of the Melitta filter was progressively improved and refined. The Melitta coffee filter, as we know it today, was developed and patented in 1936.

Melitta's business activities in North America are concentrated on products for the discerning coffee drinker. The range of products marketed under the "Coffee Perfection" slogan enjoy a high reputation for quality among North American consumers. The consumer product line includes a full range of household coffeemakers, automatic drip and non-electric, coffee filters, extra-premium coffees and accessories.

Marketing a complete range of coffee-related products, Melitta projects a strong claim to expertise in the field of coffee and coffeemaking. Sales and marketing activities are carried out with the aim of reinforcing this claim.

Melitta has recently launched the Melitta Foodservice Division to provide a full range of coffeemakers, coffee filters and premium coffees for institutional, restaurant and office service needs.

Melitta coffee for all of North America, foodservice and retail, is roasted and packaged at the company's headquarters in Cherry Hill, New Jersey. Filter production is concentrated at the company's Toronto location.

Melitta's Region North America companies are subsidiaries of Melitta International, based in Minden, West Germany. Worldwide, the company manufactures and markets a wide variety of consumer products in 104 countries. □

Melitta®

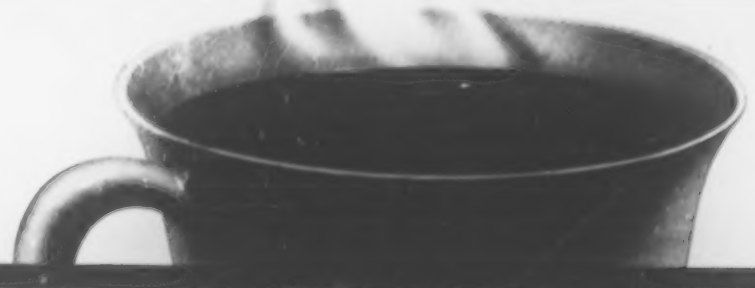
COFFEE PERFECTION™

At Melitta, coffee perfection means a dedication to excellence in all facets of coffeemaking...that's why we say "to coffee lovers Melitta means everything!"

- AUTOMATIC COFFEEMAKERS
- EXTRA PREMIUM COFFEES
- GOURMET COFFEEMAKERS
- COFFEE FILTERS

For Retail and Foodservice Markets

Melitta USA Inc., 1401 Berlin Road, Cherry Hill, NJ 08003 (609) 428-7202



The METALLGESELLSCHAFT AG was incorporated in 1881 as a joint-stock company to carry on a longstanding Frankfurt metal trading business. In the course of over a century which has passed since then, Metallgesellschaft has continuously expanded its activities by establishing new or acquiring existing plants and by merger with or participation in other companies. Today, the group of companies thus formed presents itself as a widely diversified organization active in the fields of basic materials trading and manufacture, production of speciality chemicals as well as engineering and contracting.

With a worldwide turnover of DM 15.2 billion, Metallgesellschaft is one of the largest corporations of the Federal Republic of Germany. The MG Group, with almost 22,000 employees worldwide, engages in the exploitation and beneficiation of ores and industrial minerals for supply to its own smelters or chemical plants. Part of the metals produced, including those from the processing of industrial residues, as well as metals from other sources are converted into semi-finished and finished products in works of the Group.

Metallic components of ores and their sulphur content form a basis for the production of chemicals, especially sulphuric acid, sulphur dioxide, white pigments, fillers, barium, caesium, lithium and sodium compounds.

The trade in raw materials which was originally restricted to metals and ores, now also extends to other commodities: sulphur, phosphates, fluorspar, methanol, alumina, rubber, iron ore, manganese ore, molybdenum, ferroalloys, coal, crude oil and mineral oil products.

MG Services Company based in New York, specialists in counter trade services, serve a wide variety of corporate and government clients.

The tasks connected with production, distribution and trading made it advisable to provide integrated transport and insurance services. The financial transactions of MG performed on an international scale are entrusted to its own bank.

The technological know-how, especially in the fields of ore preparation and smelting, chemical production, petroleum processing, upgrading of solid fuels, and environmental control is offered on a worldwide basis by the Group's engineering company, Lurgi GmbH. □

JPMorgan

J.P. MORGAN provides sophisticated financial services to institutional and individual clients worldwide. Through its subsidiaries, the firm offers financial advisory services, underwrites and trades securities in international and domestic capital markets, conducts commercial and private banking business, and manages billions of dollars in pension and other investment funds. Morgan has established positions of leadership in many markets, including foreign exchange, the euro-markets, and investment management.

Over the last several years, Morgan's sources of revenue have become much more diversified. The firm earns more than half its income from noninterest sources, such as trading and corporate finance fees, and ranks among the leading investment and commercial banks when measured by this source of revenue.

The ability to commit capital has become increasingly important in global finance, and J.P. Morgan's financial strength is unequaled in the United States, allowing the firm to take a lead role in numerous sizeable corporate finance transactions for its clients. The firm's capital is used in a variety of ways to meet client needs, from lending activities to equity participations.

Morgan serves the needs of its German clients in all of the world's major financial centers, particularly in New York, Frankfurt, and London, where teams of professionals are assigned exclusively to German clients. In Germany, J.P. Morgan is represented through its Frankfurt branch office and its affiliate, J.P. Morgan Guaranty GmbH, which is active in the underwriting, dealing and distribution of DM securities. □

Dräger

NATIONAL DRAEGER, INC., is a corporation formed under the laws of the State of Delaware on September 21, 1976 and is a United States subsidiary of the parent company, Draeger Beteiligungen AG in Switzerland, which is 100% held by Draegerwerk AG itn Luebeck, West Germany. The name Draegger means *safe breathing*. We develop, manufacture, and sell products worldwide that enable, support and protect human breathing. A specialized range of equipment and systems—plus know-how—has turned the name Draeger into a worldwide symbol of safety in the fields of gas detection and warning systems, breathing protection, filter technology, diving equipment, air supply systems for aviation and space technology, as well as for medical equipment.

Beginning operations in April 1977, National Draeger grew rapidly and on December 19, 1980 moved into its present headquarters in the RIDC Industrial Park located in Findlay Township within a five-minute drive of the Greater Pittsburgh International Airport.

The original plant, now identified as Building #1, consists of administrative offices, warehouse and maintenance/service space of approximately 11,500 square feet. An addition, completed in 1981, houses the National Draeger Training Gallery, a unique simulator of hazardous environments designed to aid firefighters in the use of self-contained breathing apparatus.

With the NIOSH approval of the PA-80 family of breathing apparatus, National Draeger began a new phase of assembly. Land was purchased adjacent to Building #1 in anticipation of the need for additional working space. Plans for expansion were realized and a new building, now identified as Building #2, was completed and occupied in December 1983.

Two major acquisitions in 1984—that of Energetics Science in May and the Breathalyzer product line in June—made it imperative to expand once again. And so, a two-story addition of 45,000 square feet of Building #2 was completed in June 1985 to coincide with the relocation of the Energetics Science Division from Hawthorne, New York to Pittsburgh. All operations are now consolidated under one roof to assure maximum efficiency.

National Draeger employs 175 people, all of whom are active in research and development to provide new technology and scientific knowledge to further the advancements of safety products.

Draeger products can be found in almost every industry. With a greater emphasis being placed on safety in the workplace, National Draeger has developed products to ensure a safe environment.

The wide range of gas detection and respiratory protection products National Draeger manufactures and markets include: gas and vapor detection tubes, portable instruments, fixed instruments, breathing protection apparatus, chemical protection suits and breath alcohol detection equipment.

National Draeger has come a long way in a very short time and we look ahead to a bright future of continued success. □

Rodenstock
For better vision since 1877
World leader in ophthalmic optics
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NIXDORF® COMPUTER

NIXDORF COMPUTER develops, manufactures, markets and supports computer systems and peripherals for data and information processing. The company is one of the leading suppliers of business oriented solutions in the international computer industry with revenue of over $3 billion.

The Company's sales and service network covers 44 countries with emphasis on Western Europe and the USA. Nixdorf is also active in Australia, New Zealand, Japan, Hong Kong, Korea, Singapore, Sri Lanka, the Philippine Islands, Latin America and Africa.

Computer and peripheral systems are produced by Nixdorf on an international job sharing basis, where many of the plants provide individual components for use in further production. Factories in Germany are located in Paderborn, Berlin and Cologne. Outside Germany, production plants have been established in Ireland (Bray/Dublin), Spain (Toledo) and Singapore.

Nixdorf development activities are also based on international cooperation. Nixdorf's American development sector has been carefully built up in order to ensure direct access to the most significant technology market internationally.

Users of Nixdorf systems include both medium and large sized companies in the retail, financial institutions, manufacturing, distribution, service and public administration industries. These customers are supported by a sales and service organization largely run by Nixdorf itself. In Germany and in some other countries, this network is supplemented by agents for the company.

In the U.S., Nixdorf is moving into newly constructed headquarters in Burlington, Massachusetts and has recently announced major contracts with leading specialty store retailers from coast to coast: from Liberty House in Hawaii to L.L. Bean in Maine. In addition, Nixdorf is installing over 3,000 Point-of-Service™ terminals and UNIX based in-store processors in the entire Nordstrom chain of over 55 stores.

Nixdorf employs approximately 30,000 personnel (December 1989). Most of the staff are involved in service functions such as consulting, administration, technical services and training. These services are available to the user in all phases of computer implementation, offering well-informed market-oriented support.

The workstation-oriented design of the computer systems and the capacity for branch-related specialization in the sales and service organization are decisive factors in the Nixdorf solutions concept. The success of this concept is reflected in Nixdorf's steadily increasing market shares in the U.S., Germany and the rest of the world. □

OOCL

ORIENT OVERSEAS CONTAINER LINE is one of the largest container operators in the world providing customers with a global, fully integrated containerized transportation service encompassing nine principal trade areas, including North America, Europe, Australia, the Middle East and comprehensive coverage of the Far East.

OOCL owns or operates container vessels, container terminals, containers and container chassis. In addition, the company has operations performing other functions vital to the provision of an integrated containerized transportation service, such as container service management, road haulage, intermodal services, agency freight forwarding and cargo consolidation. With an extensive computer

network, OOCL provides customers with information from all OOCL offices and agencies worldwide. Through its system capability, OOCL offers electronic U.S. Customs clearance to customers at selected ports.

OOCL has under its operation 31 container vessels with aggregate capacity of 60,000 TEUs, deployed in 15 liner service routes calling at 104 ports in 55 countries. With 5,000 professional staff worldwide, OOCL services cover all continents.

OOCL's service between Europe and North America provides maximum coverage of transatlantic ports, a dependable schedule of sailings and complete integration with OOCL's Far East services. Connecting the U.K., European Continent and Mediterranean with North America are two weekly fixed day sailings: Europe East Coast Express and Europe St. Lawrence Express.

Beyond North America, OOCL's services include service between the Far East and Europe, the Middle East, and Australia, as well as Far East Interport services. While utilizing separate fleets, these distinct services provide a well coordinated network of integrated service enabling customers to deal with one carrier to satisfy all of their transportation needs. □

KPMG Peat Marwick

KPMG PEAT MARWICK is the U.S. practice of KPMG (Klynveld Peat Marwick Goerdeler) the leading international firm of accounting, auditing, tax and management consulting services in the U.S. and, in concert with other KPMG member firms, throughout the world. With its access to KPMG's unrivaled multinational network, KPMG Peat Marwick's reach and market share is second to none. KPMG currently has 650 offices in 120 countries worldwide, and employs over 48,000 partners and professionals. One third of those partners and professionals are located in North America and one third are located in Europe. In the Federal Republic of Germany, the KPMG Deutsche Treuhand Group has over 3,000 professionals and support staff.

KPMG Peat Marwick combines its geographic reach with functional expertise to address the business needs of many types of industries. This is especially important as increasing numbers of European firms establish plants and distribution centers in the U.S. to take advantage of the robust economy. The increasing European involvement in the U.S. will take on new dimensions as the European Community drops trade barriers among its member countries as part of the process. KPMG is uniquely positioned with leading firms in Europe and North America to help clients with businesses on both sides of the Atlantic.

Several years ago, KPMG Peat Marwick formed its German practice which now comprises more than a dozen qualified German nationals, including both certified public accountants and tax professionals. Individually, and using the worldwide resources of KPMG, our German practice offers clients a full spectrum of general business, financial, tax and legal advisory services. Today the KPMG German practice serves an average of 160 clients annually, including prominent industrial firms, insurance companies, and banks. While most of these clients are subsidiaries of German companies, several are U.S. firms considering investment in West Germany.

Clients turn to KPMG with increasing frequency for advice on a host of matters including those related to acquisitions and investments in both West Germany and the United States. Our professionals are able to evaluate and explain the business implications of the two countries' differing accounting, tax and legal systems. Working with a team of U.S. and German professionals, we take an active role in every phase of the investment process, from developing negotiation strategy to shaping the transaction's terms. Our expertise in performing due diligence reviews and appraisals is of special importance to West German companies who are unfamiliar with the U.S. market.

The German practice also provides valuable assistance to German companies and other interested parties through information and educational programs. These include seminars on accounting and tax regulation laws, held in Germany as well as the United States. The German practice also publishes a quarterly newsletter, in German, on current U.S. accounting, audit and tax developments. Our subscribers include German executives of U.S. subsidiaries of West German companies, as well as executives of companies in West Germany.

To learn how Peat Marwick might be able to help your company with its particular business needs and to subscribe to their newsletter, please contact either:

Dr. Hans Saur, partner-in-charge
(212) 909-5745
Mr. Juergen Tschesnok,
management consulting
(212) 872-5704
Mr. Hans Flick, tax consulting
(212) 872-6684
KPMG Peat Marwick
German Practice
767 Fifth Avenue
New York, NY 10153 □

Price Waterhouse

PRICE WATERHOUSE is a leading worldwide professional organization of accountants and auditors, tax advisors, and management consultants. Price Waterhouse has a global network of firms practicing in 420 offices in 103 countries and territories, with total staff of over 40,000 men and women. The U.S. firm has 115 offices with almost 900 partners and a total staff of about 12,600.

Our existing practice, which includes companies that vary in size from start-up ventures to giant multinationals, has earned for us a reputation as a leader in providing the highest quality services. This position is the culmination of a century of constructive and innovative service to our highly valued clients.

Price Waterhouse's range of services, depth of experience and diversity of clients allow us to provide superior and distinctive services to the German business community through our offices in the United States and Germany.

Accounting and Auditing Services—Our auditing philosophy is to audit the business, not just the books. Our clients receive services tailored to their specific circumstances, based on a thorough understanding of the business and the environment in which they operate. We are constantly alert for opportunities for improvements in all aspects of the business. In fact, our recommendations often point the way to significant operating economies, in addition to helping protect assets and provide more meaningful information to management.

Tax Services—Almost every business decision has tax implications, and close attention to tax planning and compliance has become increasingly important for businesses and individuals. Price Waterhouse tax professionals work closely with management to help minimize taxes and cope with ever-expanding tax rules. We provide a full range of services, including tax planning and tax return preparation for expatriates and nonresident aliens as well as assistance with tax audits. In addition, we have sophisticated computer-based systems that calculate foreign source taxable income, foreign tax credits, earnings and profits, and earnings repatriations.

Management Consulting Services—Our worldwide complement of experienced consultants can provide practical advice on virtually all facets of business operations, including financial management, information processing, EDP and inventory control systems, office productivity, strategic planning,

and comprehensive marketing services. Our management consultants help businesses define their goals and develop and implement the necessary strategies, organizational structures, and information systems.

The constant change in rules and regulations for doing business at home or abroad makes it imperative that we help management respond to—and even anticipate—changes. Among other ways, we do this by preparing a series of guides that provide comprehensive information on accounting and tax regulations, investment climates, and other business issues in individual countries. Of special interest to German/U.S. businesses are many of our publications, including: *Services to German Businesses in the U.S./Dienstleistungen fuer deutsche Investoren in den USA; Immigration and Tax Planning for German Employees Assigned to the U.S./Deutsche Beschaeftigte in den USA; U.S. Federal Estate and Gift Taxation of German Nationals/US-Bundesnachlass- und Schenkungsbesteuerung deutscher Staatsangehoeriger; Doing Business in Germany; Doing Business in the United States; Tax Planning for Foreign Investment in U.S. Real Property; Tax Planning for Acquisitions in the United States; Foreign Nationals in the U.S.* There are also several bilingual guides for doing business in individual key states.

These publications are available through our offices in the U.S. or elsewhere. □

Rodenstock

The RODENSTOCK GROUP, with headquarters in Munich, is one of the world leaders in ophthalmic optics. The family-owned company entered its second century of operations in 1977 under the management of Professor Dr. Rodenstock, until recently the president of the Federation of German Industries (BDI).

In addition to six plants and eleven branches in Germany with over 6,000 employees, there are four German and seventeen foreign subsidiaries with several manufacturing facilities.

Rodenstock products cover a wide range: ophthalmic lenses, a comprehensive line of plastic and metal frames and sunglasses, precision optics for commercial, industrial and scientific applications including photographic, enlarging, reproduction and X-ray objectives as well as a complete line of ophthalmological refracting, diagnostic and therapeutic instruments and automatic processing equipment for opticians.

In the United States the Group maintains the following operations:

Rodenstock USA, Inc., Danbury, CT

Rodenstock Corporation, Yauco, PR

Rodenstock Precision Optics, Morton Grove, IL

Felix Mendelson Co., Los Angeles, CA

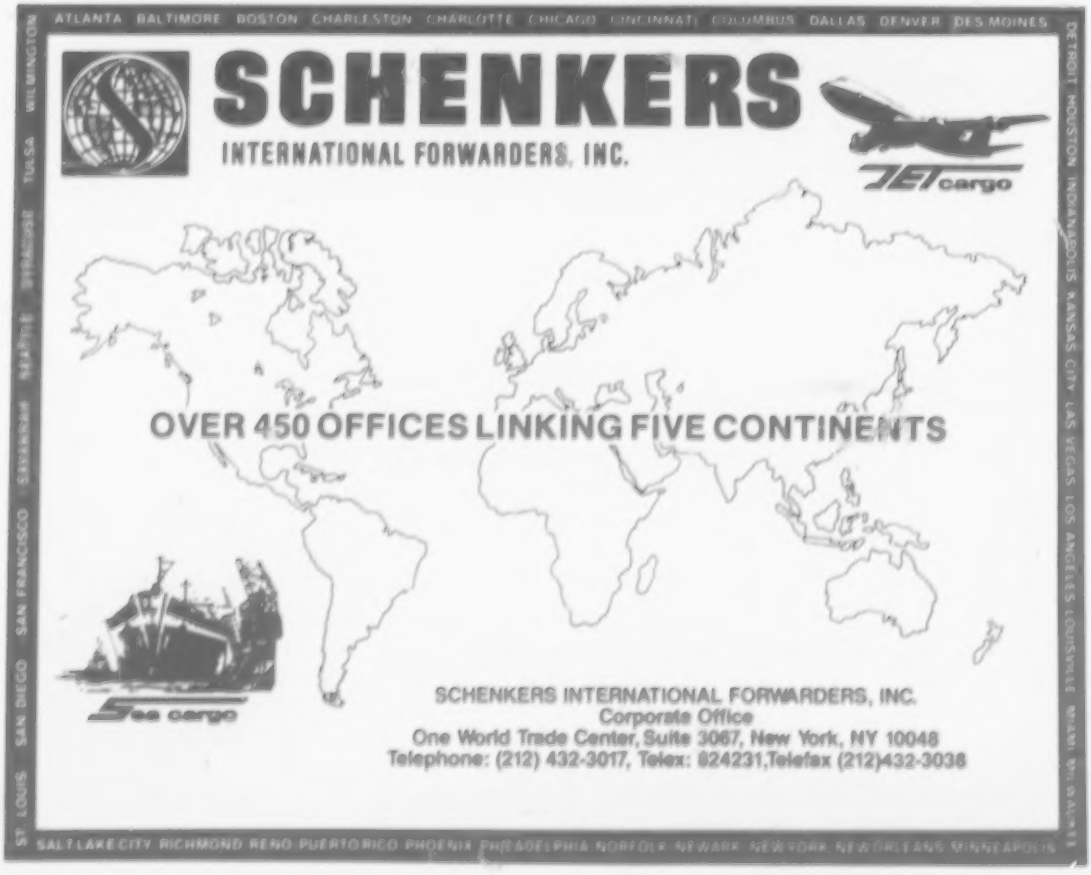
In addition, the WECO instrument line is represented in the United States by Coburn Optical Industries.

Steady growth and expansion continue to mark Rodenstock's active engagement in the United States. □

SCHENKERS

Internetic.net Forwarders, Inc.

SCHENKERS INTERNATIONAL FORWARDERS, INC. is part of one of the world's oldest and largest freight forwarding organizations. Operating with access to—and as an important part of—an extensive worldwide network, Schenkers enjoys a reputation as a


ATLANTA BALTIMORE BOSTON CHARLESTON CHARLOTTE CHICAGO CINCINNATI COLUMBUS DALLAS DENVER DES MOINES
DETROIT HOUSTON INDIANAPOLIS KANSAS CITY LAS VEGAS LOS ANGELES LOUISVILLE MIAMI
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reliable, experienced and innovative provider of all forwarding and related services.

In 1953, Schenkers began operating from an office in New York City; a second office, in Chicago, was opened in 1959. Over 40 offices now serve the needs of importers, exporters and domestic shippers throughout the country. Every major international port, air gateway and industrial area in the U.S. is supported by a Schenkers office.

Air and ocean import and export shipments account for a major portion of the company's activities. Consolidations and containerizations are arranged; rates are negotiated and filed; all necessary documentation, including legalization, banking, letters of credit and sight drafts, are completed. Schenkers has outstanding expertise in handling hazardous or perishable cargo.

Household removal and personal effects are part of Schenkers' specialized global services.

Licensed customs brokers are on staff in every branch office. These individuals have a vast wealth of knowledge about all types of entry preparation, including fairs and exhibitions, formal and informal, dutiable, duty-free, CBI and CSP. They can file continuous bond applications, enter temporary import bonds, arrange for drawbacks and process carnets. Access to the U.S. Customs' Automated Broker Interface (ABI), designed to streamline entry processing functions, is granted only after rigorous training and 100% error-free testing. Half of the company's offices are now certified by U.S. Customs; all branches are expected to be on-line by early 1989.

International projects and logistics services are a Schenkers' strong point. Staff experts work with engineering and construction firms, starting with project feasibility studies, through planning and, finally, to implementation of massive long-term cargo movements. A computerized logistics system, designed by Schenkers, controls the flow of information throughout the worldwide network. This system provides regular status reports and insures complete coordination from the U.S. suppliers to job sites as remote as Papua, New Guinea, or off-shore Malaysia.

Fairs and exhibitions are vital showcases for international marketers. In this area, Schenkers' specialists not only coordinate cargo transport, they also facilitate packing, crating, warehousing and setting up displays. Customs clearances are expedited, and all paperwork is completed for the client. When the fair is over, Schenkers can have the exhibit disassembled and returned, and can also deliver any merchandise sold at the trade show.

Packing is more than an art—it's the vital first step to damage-free transportation of any cargo. Schenkers' professionals select the correct protective materials or, if necessary, design and manufacture customized packing. Warehouse facilities throughout the country boast state-of-the-art equipment. Employees, trained to handle the most sensitive shipments, take care of export packing, warehousing, containerization and secure storage. Several of these warehouses have separate U.S. Customs Bonded Storage areas.

Schenker & Co. was founded in 1872 by the enterprising young Gottfried Schenker and two partners. The following year he introduced a radical new concept in transport, combining several small shipments into one unit. The first consolidated rail freight shipments were moved between Paris and Vienna. As early as 1898, Gottfried Schenker recognized the importance of links with the New World and became an agent for the Kansas City, Pittsburg & Gulf Railroad Company.

Today, the worldwide Schenker organization is made up of over 500 offices staffed by nearly 12,000 highly trained personnel. The company is represented in more than 100 countries; it has facilities in 120 air freight terminals and in over 100 seaports. In the U.S., nearly 1,000 employees serve Schenkers' clients from over 40 locations; in Germany, more than 4,200 people work in over 125 offices.

This dense, globe-girdling network stands ready to manage any shipment, no matter how large or small, to any place in the world. For information and advice on all forwarding and related services, contact:

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Corporate Traffic Department
One World Trade Center, Suite 3067
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Tel: (212) 432-3058
Telex: 824231
Fax: (212) 432-3038

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D-6000 Frankfurt/Main 70
Tel: (69) 60530
Telex: 41525811
Fax: 6053207 □

SCHLEICHER

Relays and Automation Systems

When you come from the city of Berlin to Spandau you will recognize from a distance already the blue hexagon on the striking yellow building: symbol of a successful traditional enterprise. Founded in 1937 by Senior Engineer Otto SCHLEICHER and—after destruction and dismantling—newly established and developed to a modern industrial enterprise by his son, Senior Engineer Helmut Schleicher, the Schleicher relay works stand today for manufacturers of excellent precision time delay relays and program control equipment, in Germany and in the world. From the very beginning it was the capability to participate in the technological relay progress by pioneer work which secured the success of the Schleicher relay works. The secret of the success of Schleicher relays is functionality. The convenient time adjustment and range selection, the at-a-glance function display, stylish standardized housings, universal surface and recessed mounting facilities are as convincing for the relay user as the clear plastic cover which reveals the high-precision "interior" of every Schleicher time delay relay.

There is another field in which Schleicher's lead in relay engineering is obvious—the use of modern plastics. Whereas a time delay relay previously consisted of over 260 components, relays have now been reduced to a mere 80 or so precision parts that are simply fitted together.

The technical development activities of the Schleicher works are mainly concentrated on the quality improvement and quality assurance of the mechanical and electronic time delay relays as well as on the necessary expansion in the field of electronic control systems.

From the most simple programmable control system of the compact type to the multiprocessor system for bit and word processing this product range occupies today a large space in the comprehensive Schleicher program.

This technology is manufactured in the Berlin works as well as in the affiliated Munich subsidiary, Schleicher Electronic GmbH & Co. KG, concentrating especially on customer-specific controls.

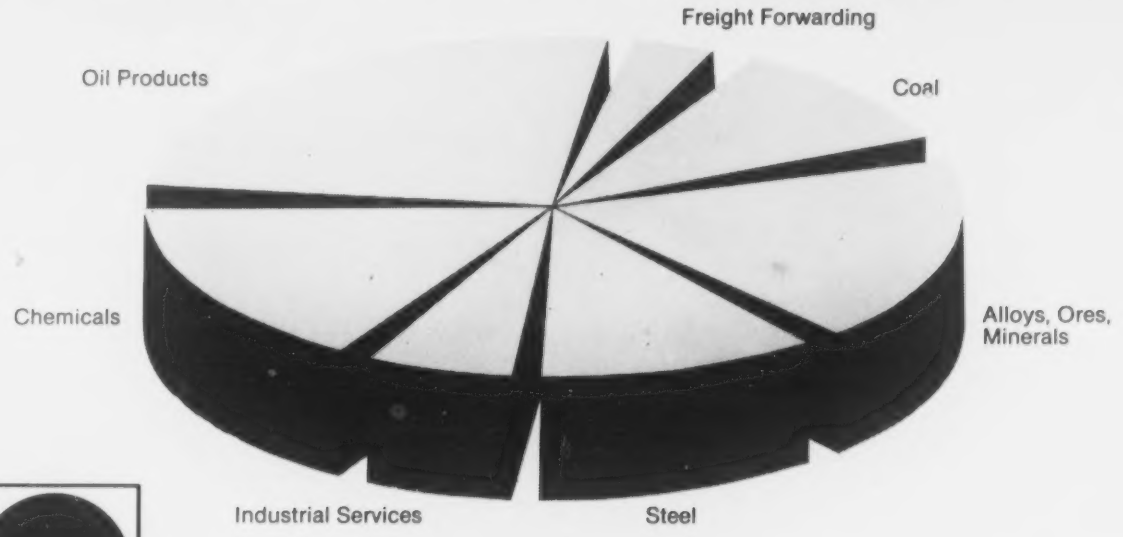
The Schleicher company offers service in all parts of the world for the relay as well as for the control systems program by competent consultant offices and representatives. □

SIEMENS

In fiscal 1988, SIEMENS reported $3.1 billion in sales and more than 28,000 employees for its companies in the United States.

The nearly 20 percent sales increase of the U.S. companies was supported by improved business conditions for many of the operating

TRADING DISTRIBUTION AND SERVICES



STINNES

STINNES CORPORATION

750 Third Avenue, New York, NY 10017, Tel. (212) 986-1515 Telex 234123 RCA Telefax (212) 949-7436

units. Siemens Medical Systems of Iselin, N.J. surpassed $1 billion in sales. Siemens Energy & Automation of Alpharetta, GA, Siemens' second largest U.S. entity, successfully completed a three year restructuring program.

During the year, Siemens and Intel Corp., Santa Ana, Calif., established Biin, a joint venture company which is developing computer systems for defense, manufacturing and financial on-line transaction processing. Siemens also acquired a majority interest in the former Bendix Electronics Operations of Allied Signal, Inc. Later, Siemens renamed the new unit Siemens Automotive Electronics, Inc., and has located it in Troy, Mich., as an integral part of an organization serving the world-wide automotive market.

To assure their position for the future, the Siemens companies in the United States invested $229 million in research and development in fiscal 1988. Much of this work is accomplished by the individual companies. Supporting their efforts and serving as the coordinating organization for U.S. research is Siemens Corporate Research, Inc., which opened a $16 million facility in Princeton, N.J. The laboratories work closely with the U.S. companies as well as with American scientific institutions and colleges and universities.

The other major Siemens companies in the United States are: Siemens Components, Inc., Iselin, N.J.; Siemens Communication Systems, Inc., and Siemens Information Systems, Inc., Boca Raton, Fla.; Siemens KWU, Inc., New York, N.Y.; Hell Graphic Systems, Inc., Port Washington, N.Y. and OSRAM Corporation, Montgomery, N.Y. □

STINNES

STINNES CORPORATION, New York, is a wholly owned subsidiary of Stinnes AG, Muelheim, West Germany, a member of the VEBA Group of companies. As a holding company, Stinnes Corporation monitors the trading, distribution, export and import activities of its subsidiaries and joint-venture companies in the United States. Stinnes presently is engaged in four major product lines.

Stinnes Interoil, Red Bank, New Jersey is a major supplier of heating oil and other oil products to utilities and industry. Stinnes Coal Company, Inc., with offices in New York and Kentucky, markets U.S. steam and metallurgical coal both on a domestic and export basis. F & S Alloys and Minerals Corporation, New York and Miller and Company, Chicago serve the domestic foundry and steel industries with a wide spectrum of alloys, ores, minerals and other raw materials from worldwide sources.

The chemical distribution activities of Stinnes consist of four strong regional distributors: Textile Chemical Co., Inc., Reading, Pennsylvania; Delta Distributors Inc., Longview, Texas; P.B. & S. Chemical Company, Inc., Henderson, Kentucky; and SOCO-Western Chemical Corporation, Los Angeles, California. International chemical trading including international sourcing is performed by Brenntag Interchem, Inc., Philadelphia, Pennsylvania.

Other ventures include freight forwarding services provided by Rhenus Transport International Corporation, New Jersey, steel trading and distribution by Steelinter Inc., New York and the repair and rebuilding of diesel engine components by Precision National Plating Services, Inc., Clarks Summit, Pennsylvania.

Total sales of the U.S. Group are expected to be approximately $1.2 billion in 1989. All subsidiaries are actively expanding their operations. □

Springer-Verlag

SPRINGER-VERLAG, with over 14,000 books in print (and an additional 1,800 new titles released yearly), and over 300 journals, is a leading international scientific, technical, and medical publisher. Founded in Berlin by Julius Springer in 1842 as an outgrowth of his bookstore, Springer-Verlag began with a list of titles reflecting the general interests of the intellectual community. This included works on law, electromagnetics, agricultural problems, as well as belles lettres, fiction and books on chess. (Later, a play on one meaning of the German word *Springer* resulted in the company's logo, a knight chesspiece.) Specialization in science and technology developed over succeeding generations. Diesel, Faraday, and the Siemens brothers were among the contributors to engineering, while Springer-Verlag's enduring leadership in mathematics can be traced to ties with the Mathematics Institute of Goettingen in the 19th century.

Springer-Verlag is now comprised of a worldwide network of interlocking editorial, production, marketing and distribution centers. A significant factor in this development was the foundation of Springer-Verlag New York Inc. in 1964. It began by marketing European titles, but soon had a flourishing English-language program of its own and important contacts with North American authors. The American subsidiary publishes over 200 new books and 50 journals yearly, and employs over 225 people. Administrative and other offices are located in the landmark Flatiron Building in New York City; the distribution center is in Secaucus, New Jersey. □

Südwestdeutsche Landesbank

SUEDWESTDEUTSCHE LANDESBANK was created at the turn of the year 1988/89 by the merger of the Landesbank Stuttgart and the Badische Kommunale Landesbank, Mannheim.

Suedwestdeutsche Landesbank is not only the leading bank in Baden-Wuerttemberg, a state in the Federal Republic of Germany, but ranks among the 100 largest banks in the world. The head offices are in Stuttgart and Mannheim with domestic branches in Freiburg and Karlsruhe and a stock exchange office in Frankfurt. Presently, the bank has a London branch, subsidiaries in Zurich and Luxemburg, and representative offices in Hong Kong and New York. Our balance-sheet total amounts to DM 72.7 billion with capital of DM 1.4 billion.

The Landesbank is the central institution of the savings banks in Baden-Wuerttemberg and a multitask commercial bank.

As the central bank, the Landesbank undertakes for the savings banks domestic and foreign payments, documentary credits, stock-exchange and securities transactions as well as other business transactions.

As a commerical bank, Suedwestdeutsche Landesbank offers a wide range of banking services. A particularly strong point is our policy of long-term loans at fixed interest rates.

Money market, foreign exchange and equity dealings are especially important businesses of the Landesbank, and the bank is financed mainly by issuing fixed-interest bonds.

The Suedwestdeutsche Landesbank is a strong partner for exporters and importers alike with an international expertise, a worldwide network of correspondent banks, and membership in the SWIFT-system.

In addition to delivering background information, our representative office in New York focuses on initiating business connections abroad.

Suedwestdeutsche Landesbank is the nucleus of a financial services group which includes the 92 savings banks in Baden-Wuerttemberg with more than 3,800 branches, two insurance companies, and two building societies. This group offers customers the whole spectrum of financial services available today. □

TRW

The history of EHRENREICH is closely connected with that of the automotive industry. Aurelius Ehrenreich founded the company in 1887—only one year after Gottlieb Daimler had built the first four-wheel motor-driven carriage. Within only 35 years the company developed into an important manufacturer of a variety of parts for the machine-building industry. In 1921 the start in automotive engineering was made by acquiring the patent for ball joints for the manufacture of tie rods and drag links.

Today Ehrenreich produces ball joints and suspension ball joints, track control arms, steering linkages, radius rods and stabilisers and gear shift levers for practically all makes and almost all types of vehicles in Europe on the basis of maintenance-free ball joints. Recently complete power steering gears were included in the company's product range.

The high safety and quality standards that are recognized throughout the automotive industry are an essential must for the present position of TRW EHRENREICH in Europe. With about 3,700 employees in five plants, Ehrenreich is not only one of the largest companies in the TRW corporation but also a leading supplier to Europe's automotive industry.

Ehrenreich became a subsidiary of TRW Inc. Cleveland/Ohio in 1971. This corporation is active throughout the world with 70,000 employees and ranks among the largest suppliers to the automotive industry. Additionally, TRW is a leader in the American space and satellite industry as well as in the fields of communication, electronics and computer technologies. As part of TRW, Ehrenreich will also in the future continue to offer most competitive products to the automotive industry worldwide. □

TENTE®

The history of TENTE begins in 1923, in Tente, a small village near Cologne, West Germany. The company originally marketed ball casters and rollers for sliding cabinet doors. From the start, the company developed a good reputation which in turn led to expansion of the product range and the commencement of manufacturing activities.

Following World War II, Tente concentrated on manufacturing precision institutional casters; and in the 1950s and 60s, Tente grew into one of the world's largest caster manufacturers.

In 1983, Hufa Rollen KG, a manufacturer specializing in furniture and industrial casters, was purchased by Tente. This purchase laid the foundation for a complete product line.

Today, Tente has modern production facilities with in-house tool manufacturing, molding, pressing, stamping, plastics processing, zinc die casting, testing labs and computer controlled warehousing and production lines.

Tente Casters, Inc., a wholly owned subsidiary of Tente Rollen GmbH, was founded

in 1979 to serve the caster needs of America. The Erlanger plant was expanded in 1986 and 1989 to meet the growing needs of the American market.

Today, the Tente group employs more than 800 people, in two factories in West Germany and in production facilities in the United States, France and Ireland. Additionally, Tente has sales offices worldwide and serves customers in more than sixty countries.

For additional information, please contact:
Douglas Ohmer
Marketing Manager
Tente Casters, Inc.
1211 Cox Avenue
Erlanger, KY 41018
606-283-1616 □

THYSSEN

THYSSEN INC., a wholly owned subsidiary and member of the West German Thyssen Group, is a major U.S. and international trading concern, which has its headquarters in New York City.

The steel products of the Thyssen mills as well as industrial products of various Thyssen enterprises have been sold in the U.S. for many years. As the demands for these products increased, it became necessary for the Thyssen Group to establish a company to facilitate communications, order entries and achieve more complete penetration between Thyssen and its customers.

Thyssen Inc. was founded in mid-1959. Since its formation, Thyssen Inc. has continually expanded its U.S. and international operations by adding various new lines of activities to the original business of importing steel. As a result, Thyssen Inc.'s organizational set-up was restructured in the beginning of 1981 with the formation of three major divisions, Thyssen Steel Co., Thyssen Carbometal Co. and Thyssen Rheinstahl Technik Co.

Thyssen Steel Co. expanded its direct domestic sales representation with offices in Houston and Los Angeles and with the formation of divisions and/or subsidiaries to handle and establish various additional lines of business.

In the 1970's, Thyssen Steel Co. entered the domestic market of steel warehousing with the establishment of Thyssen Metal Service/Southwest and later on with Thyssen Metal Service/West Coast and Thyssen Steel Detroit Co. and Westcoast Metal Products Co. These service centers and distributors supply to the Southwest, Southeast, Northeast, the Midwest and Great Lakes areas and the West Coast respectively with rolled steel products.

Since the mid 1980's, Thyssen Steel Co. successfully opened export markets for steel products manufactured by U.S. and Mexican steel producers.

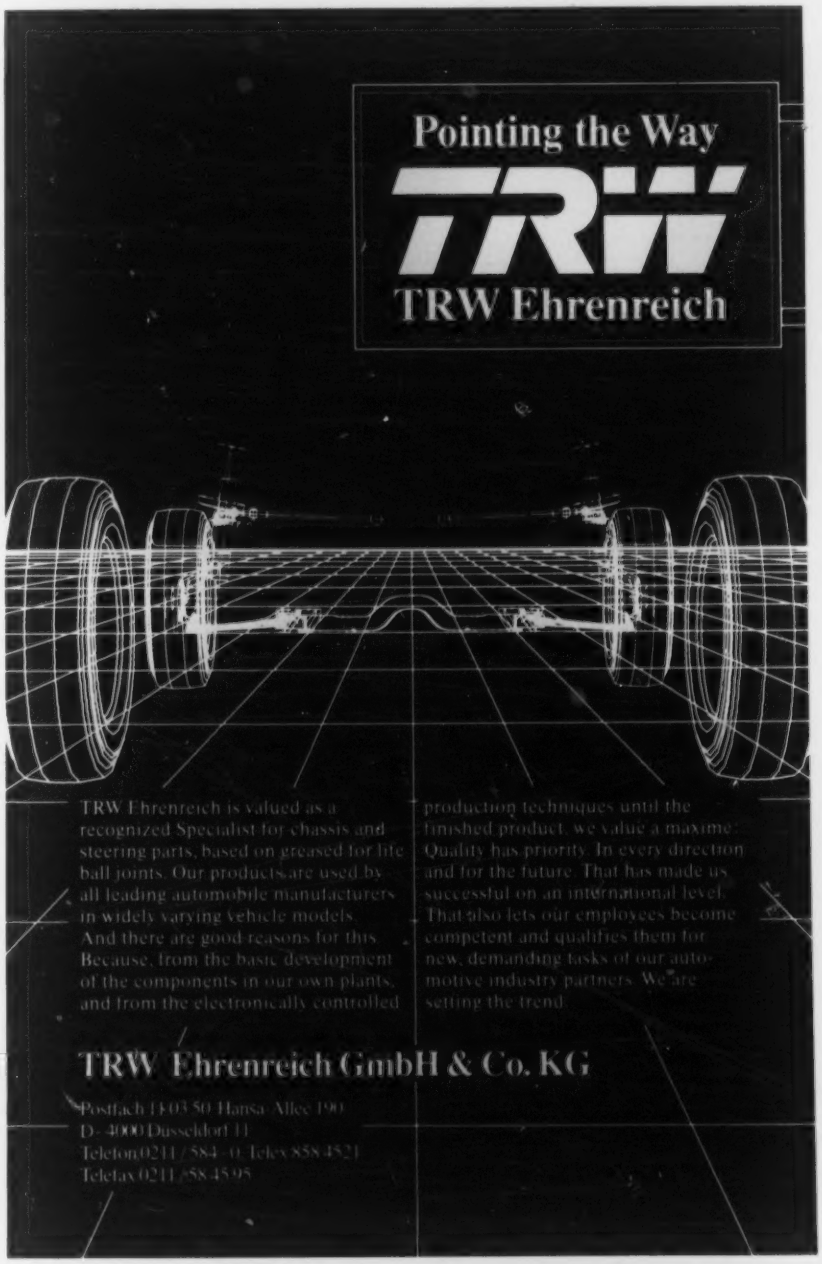
At the same time, Thyssen Carbometal Co. established a worldwide business in raw materials, mainly coal and iron ore, steel scrap and secondaries.

Thyssen Rheinstahl Technik Co., headquartered in Atlanta, Georgia, established itself as project manager and general contractor of turn-key and related industrial building and construction projects in the Southeast and West Coast regions.

In mid-1989 Thyssen acquired Amerford International Corporation, a leading international air and sea freight forwarder, thereby firmly establishing Thyssen's transportation activities in North America and the world.

Today the combined operations of Thyssen Inc. employ almost 600 people in various parts of the country. The company's activitiies include international raw material trading, warehousing and steel service center operations in the U.S., as well as sales of industrial products and project management.

With such dynamic growth, Thyssen Inc. has beome a major factor in the domestic steel community and in international trading. □


Pointing the Way
TRW
TRW Ehrenreich
TRW Ehrenreich is valued as a recognized Specialist for chassis and steering parts, based on greased for life ball joints. Our products are used by all leading automobile manufacturers in widely varying vehicle models. And there are good reasons for this. Because, from the basic development of the components in our own plants, and from the electronically controlled production techniques until the finished product, we value a maxime: Quality has priority. In every direction and for the future. That has made us successful on an international level. That also lets our employees become competent and qualifies them for new, demanding tasks of our automotive industry partners. We are setting the trend.
TRW Ehrenreich GmbH & Co. KG
Postfach 11 03 50 Hansa-Allee 190
D-4000 Duesseldorf 11
Telefon 0211/584-0 Telex 858 4521
Telefax 0211/58 45 95

Established as a sales subsidiary of TRUMPF GmbH in 1969 in Farmington Industrial Park, Farmington, Connecticut, TRUMPF INC. is now a wholly-sufficient 80,000 sq. ft. manufacturing, sales and service facility with 200 employees. It surpassed its sales forecast of $35 million for the fiscal year 1987-88 despite a lengthy machine tool industry depression.

In spite of the current difficult economic environment worldwide, the group of Trumpf subsidiaries, a network extending from West Germany to America, Brazil, England, France, Japan, Sweden and Switzerland that employs 2,600, increased sales by 17% to 540 million DM for the fiscal year ended June 1988.

Having incorporated production functions in 1975, the American subsidiary shipped its 500th CNC sheetmetal working machine this past Spring. Approximately 35% of the machines built in the USA are exported to Japan, Canada, Mexico and South America.

The technically superior, economically efficient, innovative Trumpf product-line includes CNC punching/contouring machines, CO 2-based lasers and lasercutting centers, fully automatic flexible manufacturing systems, and a wide range of portable power tools.

The first machine tool manufacturer to build a range of R.F.-excited industrial lasers providing advanced cutting technology,

Trumpf last March purchased an established 40,000 sq. ft. laser manufacturing facility from Combustion Engineering in Somerville, Massachusetts, in order to more deeply penetrate the more than $200 million U.S. laser market. Now called Trumpf Industrial Lasers, the operation adds the capacity to produce A.C.-excited lasers. Today, Trumpf is one of the largest laser system manufacturers worldwide.

The company extended its commitment to fully automated sheetmetal fabrication and strengthened its leadership position as a single-source supplier of complete flexible fabricating systems when in May it began providing storage and retrieval systems manufactured in the U.S. Trumpf Storage and Retrieval Systems range from simple storage racks to sophisticated units under computer control which can be integrated into many different flexible manufacturing cells.

Ideal for large production runs as well as small job shop applications, Trumpf products are a standard for productivity and precision. Heavy investment in research and development has resulted in a high degree of responsiveness to customers' manufacturing needs, whether for punching and contouring, punching and thermal cutting, cells or total flexible manufacturing systems, tooling and tool change systems, or power tools.

The Trumpf Power Tools product-line, which saves time and decreases operating costs, includes both electric and pneumatic bevelers, nibblers, a power fastener, shears, a power punch, and seam lockers. As with the Trumpf CNC machine product-line, tools are designed to ensure long service life and economical maintenance. □

UNION-TRANSPORT CORPORATION (formerly Union Air Transport GmbH) began its U.S. operation in New York in 1959 with one small airfreight office. Today it is ranked by the International Air Cargo Association as the 11th largest airfreight agent in the United States.

Union-Transport Corporation is a wholly-owned subsidiary of Union Transport GmbH & Co. Ohg of Duesseldorf, which is West Germany's third largest airfreight forwarder and its largest trucking concern.

In addition to airfreight forwarding, Union-Transport Corporation is experienced and knowledgeable as oceanfreight forwarders, and operates its own N.V.O.C.C. division, known as Unitainer. Both air and ocean departments handle imports as well as exports.

Mr. P. Robert Doernte, Executive Vice President and General Manager U.S.A. for the Corporation, opened new offices in Atlanta and Dallas last year, both of which have been extremely successful. 1989 brought further expansion in the Northwest and Midwest.

Each of Union-Transport Corp.'s modern, fully staffed offices has its own warehouse operations which facilitate the handling of cargo of all weights and dimensions. Pick-up and delivery services are available from anywhere in the U.S.A. The company has a computerized tracking system which allows direct access by the client, keeping him advised of the status of his shipment every step of the way.

The Union-Transport Group's network of established, reliable agents throughout the world complete the package, assuring only the highest quality service from origin to destination. □

V.A.W. of AMERICA, INC., a wholly owned subsidiary of Vereinigte Aluminium-Werke AG Bonn, has operated its Ellenville, NY facility for approximately 25 years and its St. Augustine, FL plant for ten years. A third plant was acquired in 1989 in Phoenix, AZ increasing its capacity by over 30%.

With these three strategically located aluminum billet and semi-fabrication plants, V.A.W. of America is positioned to cover the entire U.S. market in terms of customer service, expeditious shipments and excellent logistics.

The company's manufacturing operations include three aluminum remelt facilities, ten extrusion presses and fourteen high-speed drawbenches. The Ellenville plant's solution heat-treat and seamless tube capability ranks it among a limited number of world-class suppliers in drawn tube for special applications. The plant also holds a similar position in the imaging industry in the supply of copier drums. In close tolerance extrusions, production of sailboat masts, automotive and electronic features, lighting stands and spin tubing are particularly noteworthy. The St. Augustine plant's Fabrication Division includes a computer numerically controlled (*CNC*) machining facility which operates nine horizontal and vertical centers producing such articles as copier fuser rolls and printing plotter beams. In finishing, the operation houses two paint lines: an electrostatic, thermal-setting acrylic or polyester line and a powder coat line. The Phoenix plant's capabilities are highlighted by capabilities in close tolerance specialty extruded shapes, large diameter pipe including spin tube and drawn tube.

Through its award-winning engineering design team and its research and development metallurgical staff, the company has amplified its quality reputation as the industry leader in the production of practically the entire range of sizes, surfaces, tempers and alloys of drawn tube, specialty extruded shapes, fabrications, finishing and electrical conduit.

The production facilities represent an extension of the technical development in the testing laboratories, utilizing state-of-the-art equipment such as coordinate measuring and ultra-modern electrospectographic analysis machines. Quality is assured at every step in the manufacturing process through elaborate testing as well as statistical process control (*SPC*) data and certifications for chemical

compositions and mechanical properties.

V.A.W. is regarded in the U.S. market as a major supplier of fabricated, finished extruded and drawn aluminum tubular and shape products. Its solutions and ideas have continually assisted the customer, leading to V.A.W.'s reputation as *Your Partner in Aluminum*. □

VOKO

VOKO is Europe's leading manufacturer of office furniture systems and achieved that distinction through fine design, unsurpassed engineering, expert craftsmanship, impeccable attention to detail, and service to customers—the same qualities that have earned German products worldwide acclaim. VOKO is proud to be in the vanguard of performance product design.

Looking forward goes way back at VOKO. Started in 1911 as a fledging company that distributed office equipment, Franz Vogt, Sr., company founder and father of VOKO's present chariman, Franz Vogt, established a business school in the factory where machines and operators could be observed and studied. This unusually close communication between producer and user resulted in new, efficient office products that put the company on the map.

When VOKO began producing office furniture in the 1930's, the dialogue with clients continued to help identify current and future needs. The effects were revolutionary. In the 1950's VOKO pioneered the modernization of the office with furniture that combined a new, functional approach and a refreshing contemporary aesthetic. VOKO's introduction, in the early 1970's, of the first complete system of modular components for the office set the direction for two decades of office design. Today, Professor Karl Dittert, the distinguished European designer, directs a continuous process of product advancement, and the Innovation and Development Team works directly with clients to solve their productivity problems. Through their efforts, VOKO is defining the environment of the office of the 1990's and beyond.

VOKO manufactures modular components and systems, storage units and complete storage walls, paper management accessories and seating. It designs for the total business interior—from operational areas to the executive suite, from the local law office to international corporate headquarters.

VOKO's products offer solutions with singular design integrity and strong visual consistency to satisfy an infinite variety of functional problems which it calls *universal* office furniture. As VOKO's presence increases around the globe, universal takes on new meaning.

The word *service* means the same as it always has: VOKO gives the client the best possible product for his purposes—and gets it there on schedule. Although VOKO does business in a dozen languages, it still tells time in German.

The VOKO headquarters in Giessen, West Germany, and numerous international satellite facilities manufacture products that are sold by a sales network in sixty-three countries around the world. Mr. Ted Ehrlich is president of VOKO U.S., Inc. which is headquartered at 564 Alpha Drive, Pittsburgh, PA, 15238. Telephone (800) USA-VOKO. □

VOLKSWAGEN UNITED STATES, INC., imports and markets a full line of cars and vans manufactured at VW plants in West Germany, Mexico, and Brazil. Headquartered in Troy, Michigan, VW/US has seven regional offices serving multi-state areas and an independent distributor located near New York City.

VW sold its first two Beetles in the United States in 1949. Sales since then have exceeded 9 million vehicles, with about 2.9 million units still in service. Beetle production worldwide has topped 20 million units, surpassing the Ford Model T as the single most popular model in automotive history. From a *one car company* in the 1950's and 1960's, VW has evolved into a full-line manufacturer whose vehicles are characterized by engineering excellence and fun-at-the-wheel driving performance.

U.S. sales peaked in 1970, when VW products accounted for nearly seven percent of the U.S. car market that year. In 1978, VW became the first foreign automaker to assemble cars in the United States when it began production in Westmoreland County, Pennsylvania.

VW/US is one of two car divisions of Volkswagen of America, also headquartered in Troy, Michigan. Volkswagen of America is the corporate umbrella for VW/US, Audi of America, Volkswagen Credit, Inc., Vorelco—a real estate subsidiary—and an automotive air conditioner/heater components plant in Fort Worth, Texas.

Volkswagen of America is a wholly-owned subsidiary of Volkswagen AG, headquartered in Wolfsburg, West Germany. Volkswagen is the leading European automotive importer in the United States and was the sales leader in Europe from 1984 through 1988, when VW Group companies produced more than 2.8 million vehicles, the highest annual output in VW's 50-year history. VW Group companies include Audi AG of West Germany and the Spanish automaker SEAT and are the world's fourth largest car manufacturer. □

ZF®

ZF OF NORTH AMERICA, Inc. is the exclusive representative for ZF products in the United States and Canada. The company currently employs 284 people at its facilities in Libertyville, Vernon Hills and headquarters in Lincolnshire, Illinois, a suburb of Chicago, and its office in Detroit.

The company emphasizes research and development, and has a reputation for producing quality, cost competitive products.

ZF specializes in advanced drive train and steering components for a wide variety of on- and off-highway applications, including agriculture, construction and material handling vehicles, passenger cars, trucks, rapid transit buses, and pleasure and work boats.

As a worldwide leader in driveline technology, ZF supplies many major manufacturers in the U.S. with automatic, manual and powershift transmissions, trans-axles, axles and steering systems.

In addition, a worldwide staff of factory-trained technicians is always available to provide prompt technical support, service and spare parts. ZF is committed to backing all of its products during the warranty period, as well as afterwards.

A brief history of the ZF Group

ZF of North America, Inc. is part of the ZF Group, which was founded in 1915 by Count Ferdinand von Zeppelin to produce transmissions for his famous Zeppelin airships.

Several years later ZF pioneered the first fully synchronized manual transmission.

Today, the ZF Group of companies is the leading independent manufacturer of transmissions, steering systems and axles in the world, has sales of $3 billion, employs more

than 30,000 people, and operates facilities and service centers in Europe, North America, South America and the Far East.

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Tel: (312) 634-3500
Fax: (312) 634-0736
Tlx: 25-5240

It costs no more to specify the best—ZF □

CARL ZEISS, Inc. is a part of the worldwide Carl Zeiss organization headquartered in West Germany. Since its establishment as a U.S. corporation in 1925, Carl Zeiss, Inc. has constantly expanded its presence in the American market as a sales, marketing, and service organization of precision products for industry and for the medical and scientific communities. These are products which have set world standards for nearly one and one-half centuries. The Zeiss commitment to uncompromising excellence has consistently defined the state-of-the-art in such diverse areas as precision machines for industrial measuring, optical systems for industrial applications, surveying instruments, aerial cameras, light and electron microscopes, surgical microscopes, ophthalmic instruments, telescopes and planetaria. Cases in point are the recent introduction of an advanced line of research microscopes, an electron microscope which promises break-through discoveries in medicine and other areas of application, and improved instrumentation for the land surveyor.

Zeiss consumer products—high fashion eyeglass frames and sunglasses, binoculars, sporting glasses and riflescopes—are offered to the U.S. market through ophthalmic dispensers and other retail outlets by another Zeiss subsidiary, Carl Zeiss Optical, Inc. in Petersburg, VA.

The unique capabilities of Carl Zeiss in combining optics, precision mechanics and advanced electronics have paved the way for significant industrial advances in the field of metrology, a science which dates back to man's first need for a formal method of linear measurement. The Industrial Measuring Technology Division of Carl Zeiss, Inc., markets high performance, computer-controlled coordinate measuring machines. Incorporating a unique probing system designed by Zeiss, measurements can be made in the incredible range of millionths of an inch. These machines, used as a quality control tool for cost-effective measurement of precision production parts such as turbine blades or components of an internal combustion engine, are rapidly replacing the time consuming task once required of measuring parts manually with traditional hand-held gauging instruments. Today, Carl Zeiss provides an entire industrial measuring technology product line to serve the needs of diverse major industries, such as automotive, aeronautic, computer, defense and energy. This is an example of another Zeiss achievement which advances the state of technology. □

NIAGARA COUNTY INDUSTRIAL DEVELOPMENT AGENCY

NIAGARA COUNTY, New York, has the power to help your business grow. Situated along the Canadian border in western New York, Niagara County is strategically located for companies looking to expand their operations in North America. Major population areas of the northeastern United States and Canada are within one-day's drive, including the cities of Montreal, Toronto, Buffalo, Boston, New York City, Philadelphia, Detroit, Chicago and Washington, D.C.

With the mighty Niagara River and majestic Falls as a backdrop, the county boasts three international bridges spanning its border with Canada, linking major highway systems in both countries.

The power of Niagara is development. Prime land is available for commercial and industrial use at competitive prices. A New York State enterprise zone and foreign trade zone offer special incentives to developers and businesses. The Niagara Power Project produces abundant hydro-electric power at reasonable rates. And the transportation network includes major interstate highways, an international airport and railway service.

The backbone of Niagara's power is its people. The county possesses a talented workforce with traditional skills for heavy industry and the education for new technology. Innovative training programs through local agencies and higher education institutions keep workers abreast of the latest advances in their fields.

The staff of the Niagara County Industrial Development Agency can help you with your expansion plans. Attractive financial and job-training packages can be arranged, as well as business counseling and assistance with site selection.

To learn more about how Niagara's power can work for you, obtain our video and business profile. Please contact:

Niagara County Industrial Development Agency
59 Park Avenue
Lockport, New York 14094, U.S.A.
Telephone (716) 433-4492

And please see our ad on the inside front cover of this publication. □

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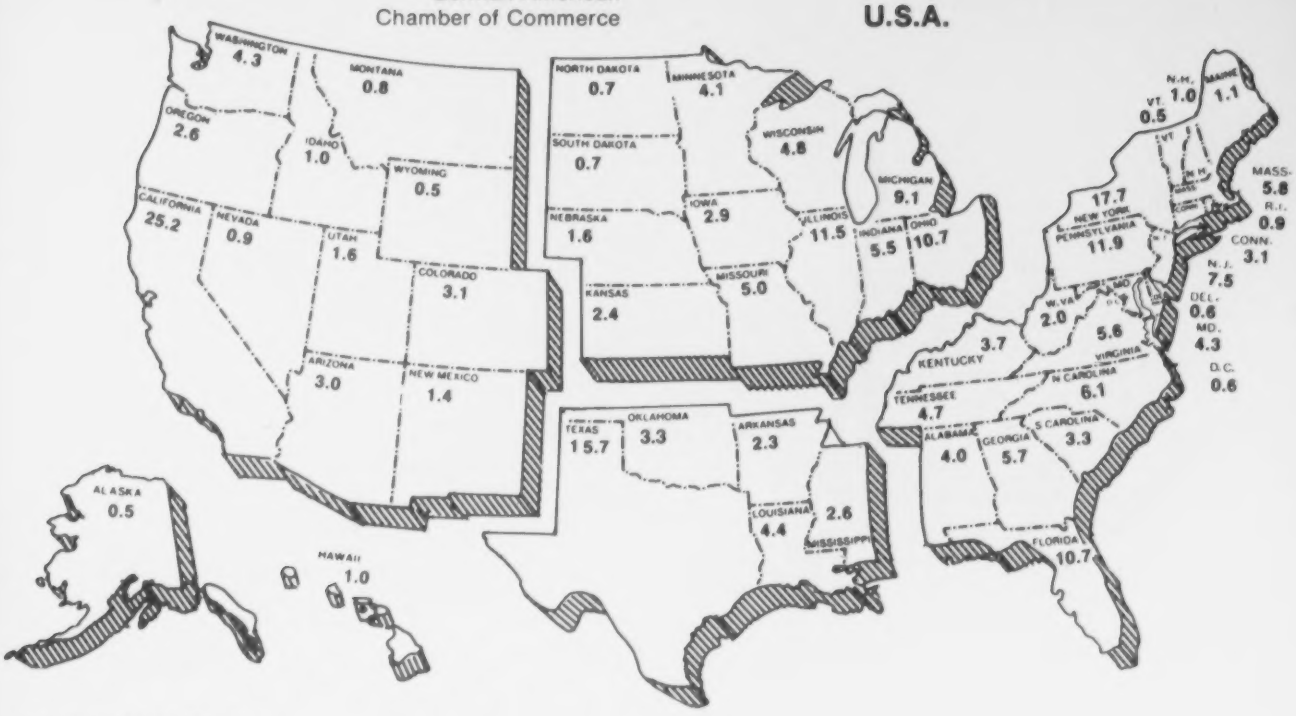


DEVELOPMENT OF POPULATION

Population Break (in mil.)	1960	1970	1980	1984	1985	1986	1987	1988
Area (in 1000 sq. miles)	3,618.7	3,618.7	3,618.7	3,618.7	3,618.7	3,618.7	3,618.7	3,618.7
Population (in mil.)	180.0	204.0	227.2*	236.1	238.7	241.1	243.1	248.0
—male	88.3	98.9	110.0	114.8	116.2	117.4	118.3	120.1
—female	90.9	104.3	116.5	121.3	122.6	123.7	124.8	126.0
Households (in mil.)	52.8	63.4	80.0	85.4	86.8	88.8	90.4	91.1

Source: U.S. Department of Commerce **Based on new benchmark levels. Not comparable with previously published data.*

Labor Market

Period	Civilian Labor Force	Employed	Unemployed	%
1960	69,628	65,778	3,852	5.5
1970	82,715	78,627	4,088	4.9
1980	104,719	97,270	7,448	7.1
1984	113,877	105,748	8,130	7.1
1985	115,461	107,150	8,312	7.2
1986	117,834	109,597	8,237	7.0
1987	119,865	112,440	7,425	6.2
1988	121,669	114,968	6,701	5.5

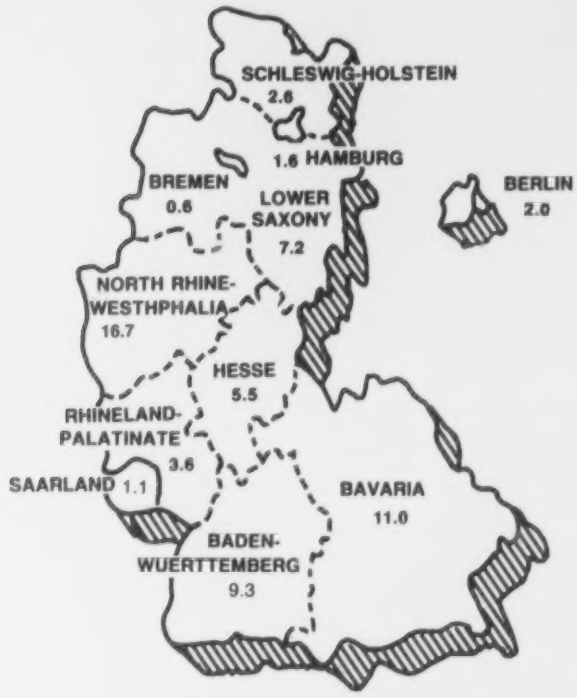
Source: U.S. Bureau of Labor Statistics, Employment and Earnings

Unemployment by Duration (in %)

	LESS THAN 5 WEEKS	5-14 WEEKS	15-26 WEEKS	27 WEEKS AND OVER
1980	43.1	32.3	13.8	10.7
1983	33.3	27.4	15.4	23.9
1984	39.2	28.7	12.9	19.1
1985	42.1	30.2	12.3	15.4
1986	41.9	31.0	12.7	14.4
1987	43.7	29.6	12.7	14.0
1988	46.0	30.0	12.0	12.1

Source: U.S. Council of Economic Advisers

GERMANY



DEVELOPMENT OF POPULATION

Population Break (in mil.)	1960	1970	1980	1983	1984	1985	1986	1987	1988
Area (in 1000 sq. miles)	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
Population (in mil.)	55.4	60.7	61.6	61.4	61.2	61.0	61.1	61.1	NA
—male	26.0	28.9	29.4	29.4	29.2	29.2	29.2	29.3	NA
—female	29.4	31.8	32.1	32.1	31.9	31.8	31.8	31.8	NA
Households (in mil.)	19.5	22.0	24.8	*	*	26.4	26.7	27.0	27.4

Source: Statistisches Bundesamt, Germany

Labor Market

Period	Civilian Labor Force	Employed	Unemployed	%
1960	26,518	26,247	271	1.3
1970	26,817	26,668	149	0.7
1980	27,217	26,328	889	3.8
1984	27,629	25,363	2,266	9.1
1985	27,844	25,540	2,304	9.3
1986	28,032	25,804	2,228	9.0
1987	28,236	26,007	2,229	8.9
1988	28,402	26,160	2,242	8.7

Source: Statistisches Bundesamt, Germany; Bundesminister der Wirtschaft, Germany

Unemployment by Duration (in %)

	LESS THAN 1 MONTH	1-3 MONTHS	3-6 MONTHS	6-12 MONTHS	1-2 YEARS	2 YEARS AND OVER
1980	21.2	30.4	18.8	16.7	7.8	5.1
1982	14.9	24.6	18.3	24.2	13.5	4.4
1984	11.6	21.7	16.2	21.7	17.3	11.5
1985	12.3	20.2	15.8	20.7	16.9	14.1
1986	12.2	20.0	15.6	20.2	16.3	15.6
1987	12.1	20.3	16.0	19.8	15.8	16.1
1988	11.7	20.1	16.0	19.6	16.1	16.5

Source: Bundesanstalt fuer Arbeit

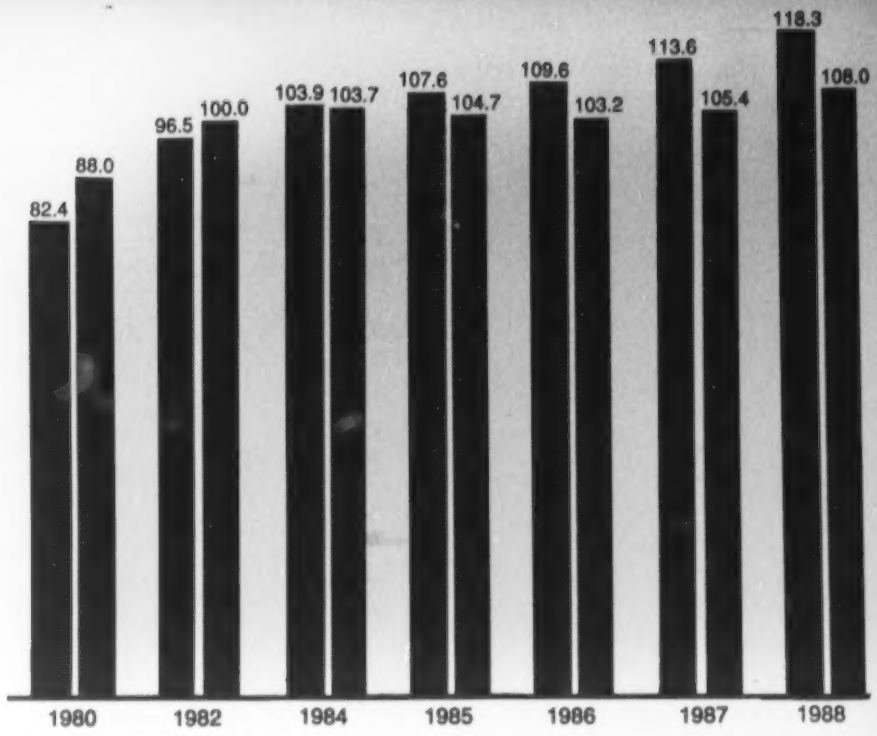
U.S.A.

PRICES AND WAGES

Consumer Price Index

Producer Price Index

Wages and inflation (1982 = 100)



Source: U.S. Department of Labor

CONSUMER PRICE INDEX (all urban consumers)

Period		1982 = 100	Change from previous year %
1970	average	35.8	+ 5.7
1979	"	72.6	+ 11.3
1980	"	82.4	+ 13.4
1981	"	90.9	+ 9.1
1982	"	96.5	+ 6.1
1983	"	99.6	+ 3.2
1984	"	103.9	+ 4.3
1985	"	107.6	+ 3.6
1986	"	109.6	+ 1.9
1987	"	113.6	+ 3.6
1988	"	118.3	+ 4.1
1989	"	124.0	+ 4.8

Source: U.S. Department of Labor

PRODUCER PRICE INDEX (finished goods)

Period		1982 = 100	Change from previous year %
1970	average	39.3	+ 3.4
1979	"	77.6	+ 11.2
1980	"	88.0	+ 13.4
1981	"	96.1	+ 9.2
1982	"	100.0	+ 3.9
1983	"	101.6	+ 5.7
1984	"	103.7	+ 2.0
1985	"	104.7	− 1.0
1986	"	103.2	− 1.4
1987	"	105.4	+ 2.1
1988	"	108.0	+ 2.4
Oct 1989	"	114.8	+ 6.3

Source: U.S. Department of Labor

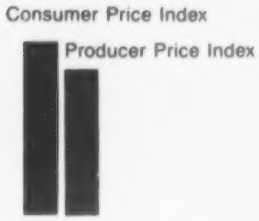
U.S.A. Gross Hourly Earnings (in $)

—average— Manufacturing Industry	
1982	8.49
1983	8.83
1984	9.19
1985	9.53
1986	9.73
1987	9.91
1988	10.37
Oct. 1989	10.54

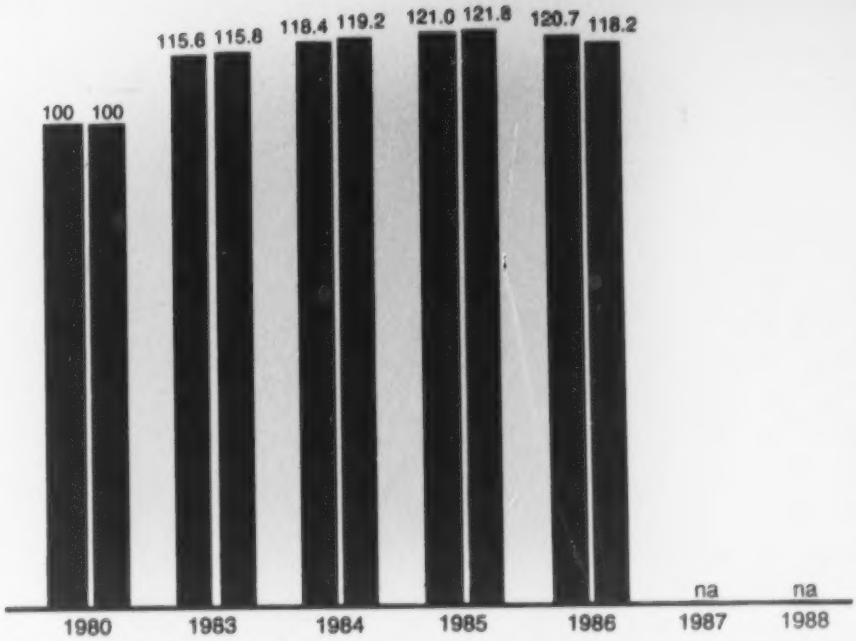
Source: U.S. Department of Commerce

GERMANY

PRICES AND WAGES



Wages and inflation (1980 = 100)



Source: Statistisches Bundesamt, Germany
Deutsche Bundesbank, Germany

CONSUMER PRICE INDEX

Period			1980[1] = 100	Change from previous year %
1975		average	82.0	+ 5.9
1980		"	100	+ 5.4
1981		"	106.3	+ 6.3
1982		"	111.9	+ 5.3
1983		"	115.6	+ 3.3
1984		"	118.4	+ 2.4
1985		"	121.0	+ 2.2
1986		"	120.7	– 0.2
1987		"	121.0	+ 0.2
1988		"	122.4	+ 1.2
1989	Jan.	"	124.6	+ 2.6
	Feb.	"	125.0	+ 2.6
	March	"	125.2	+ 2.7
	April	"	125.9	+ 3.0
	May	"	126.2	+ 3.1
	June	"	126.4	+ 3.1
	July	"	126.2	+ 3.0
	Aug.	"	126.1	+ 2.9

Source: Statistisches Bundesamt, Germany

PRODUCER PRICE INDEX

Period			1980 = 100	Change from previous year %
1975		average	67.4	+ 4.3
1980		"	81.9	+ 7.5
1981		"	88.3	+ 7.8
1982		"	93.5	+ 5.9
1983		"	94.9	+ 1.5
1984		"	97.6	+ 2.8
1985		"	100.0	+ 2.5
1986		"	97.5	– 2.5
1987		"	95.1	- 2.5
1988		"	96.3	+ 1.3
1989	Jan.	"	98.2	+ 2.9
	Feb.	"	98.4	+ 3.1
	March	"	98.7	+ 3.4
	April	"	99.2	+ 3.5
	May	"	99.3	+ 3.4
	June	"	99.2	+ 3.0
	July	"	99.3	+ 3.0
	Aug.	"	99.4	+ 3.0

Source: Statistisches Bundesamt, Germany

1. Note that CPI still on basis year 1980; to be converted to 1985 this year.

Germany Gross Hourly Earnings
(in DM)

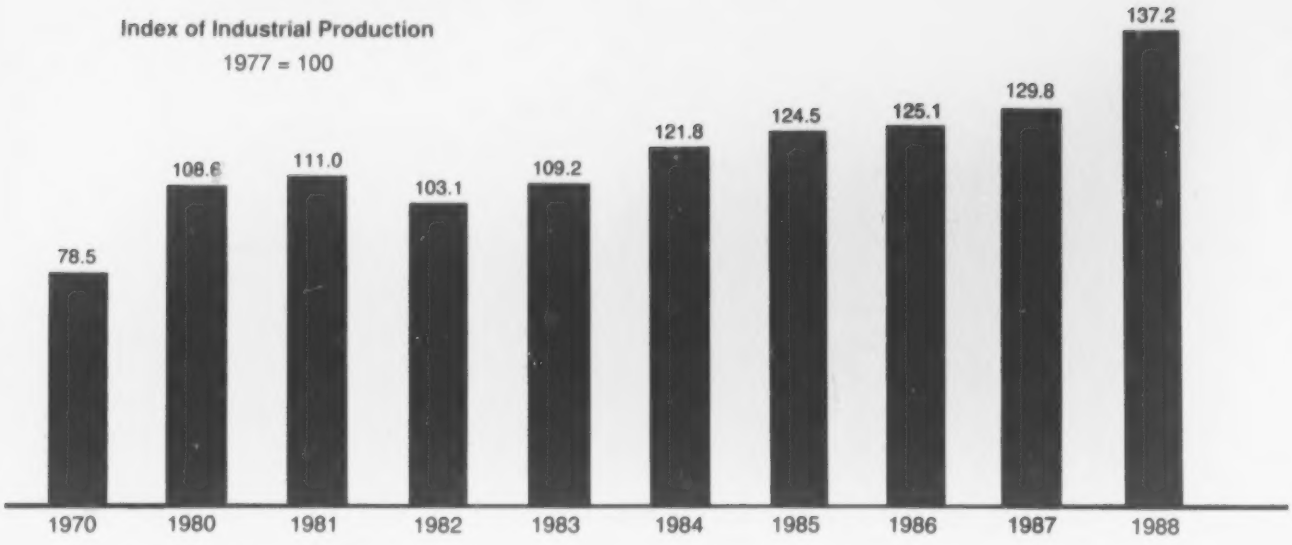
	—average— Manufacturing Industry
1983	15.41
1984	15.77
1985	16.39
1986	16.99
1987	17.68
1988	18.43
1989 Jan.	18.63
1989 April	19.04

Source: Statistisches Bundesamt, Germany

U.S.A.

INDUSTRIAL PRODUCTION

Index of Industrial Production
1977 = 100



Source: U.S. Department of Commerce

Percentage change from preceding year and quarter

1979	3.9
1980	–1.9
1981	2.2
1982	–7.1
1983	5.9
1984	11.5
1985	2.2
1986	0.5
1987	3.8
1988	5.6

Source: U.S. Department of Commerce

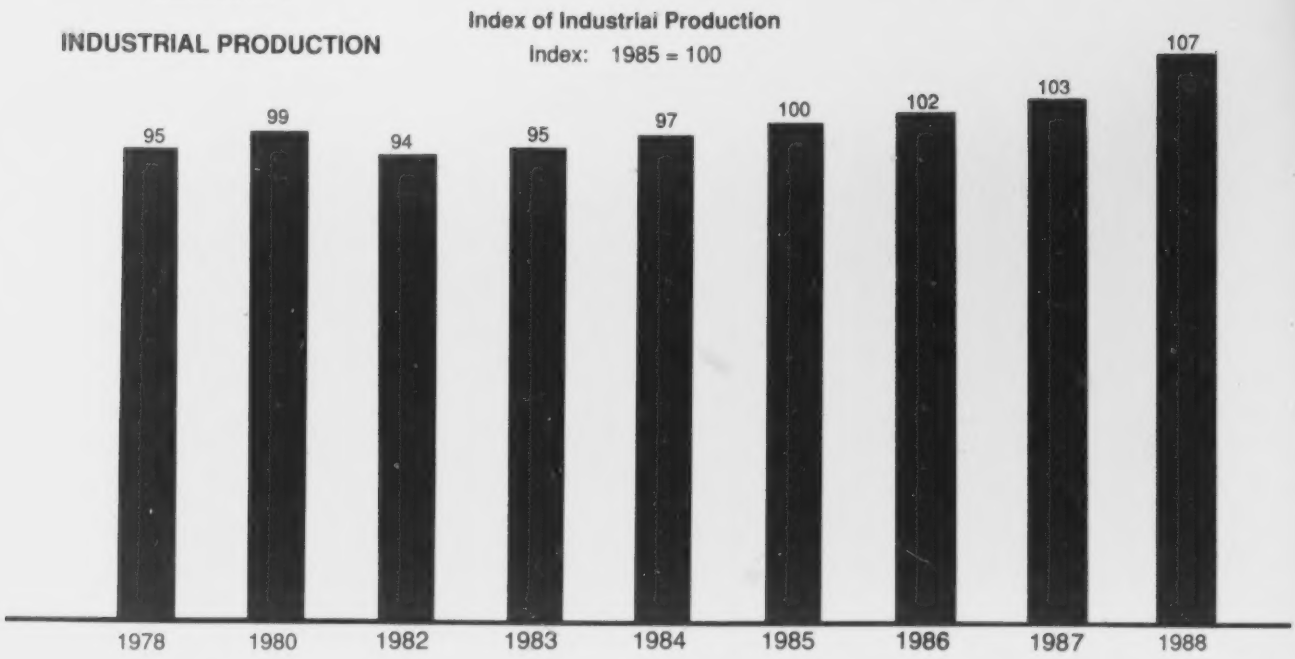
U.S.A.
Capacity Utilization Rate
(Percent; Industry)

1970	79.2
1975	79.2
1980	79.2
1981	78.3
1982	70.3
1983	74.0
1984	80.8
1985	80.3
1986	79.1
1987	80.7
1988	83.3
Dec. 1989	83.3

Source: Foderal Reserve Board

GERMANY

INDUSTRIAL PRODUCTION



Source: Statistisches Bundesamt, Germany

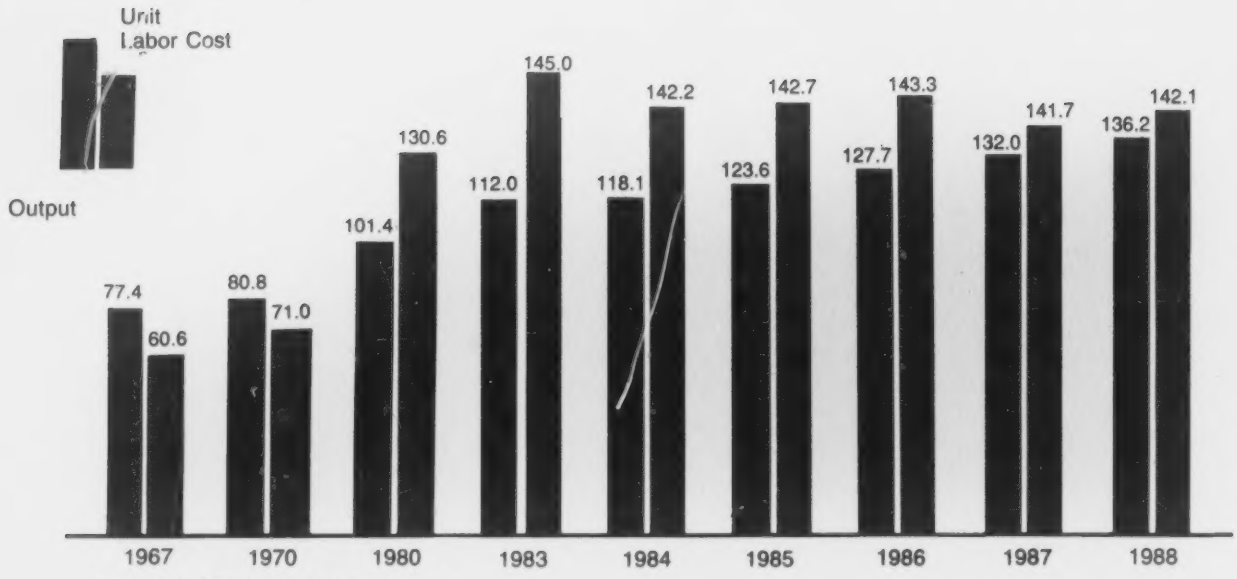
Percentage change from preceding year	
1979	+ 4.4
1980	+ 0.3
1981	– 2.5
1982	– 3.0
1983	+ 0.5
1984	+ 2.5
1985	+ 3.2
1986	+ 2.2
1987	+ 0.5
1988	+ 3.8

Source: Statistisches Bundesamt, Germany

U.S.A.

PRODUCTIVITY AND UNIT LABOR COST IN MANUFACTURING

Output and Unit Labor Cost per Hour
Index: 1977 = 100
(on $ basis)



Source: U.S. Department of Labor

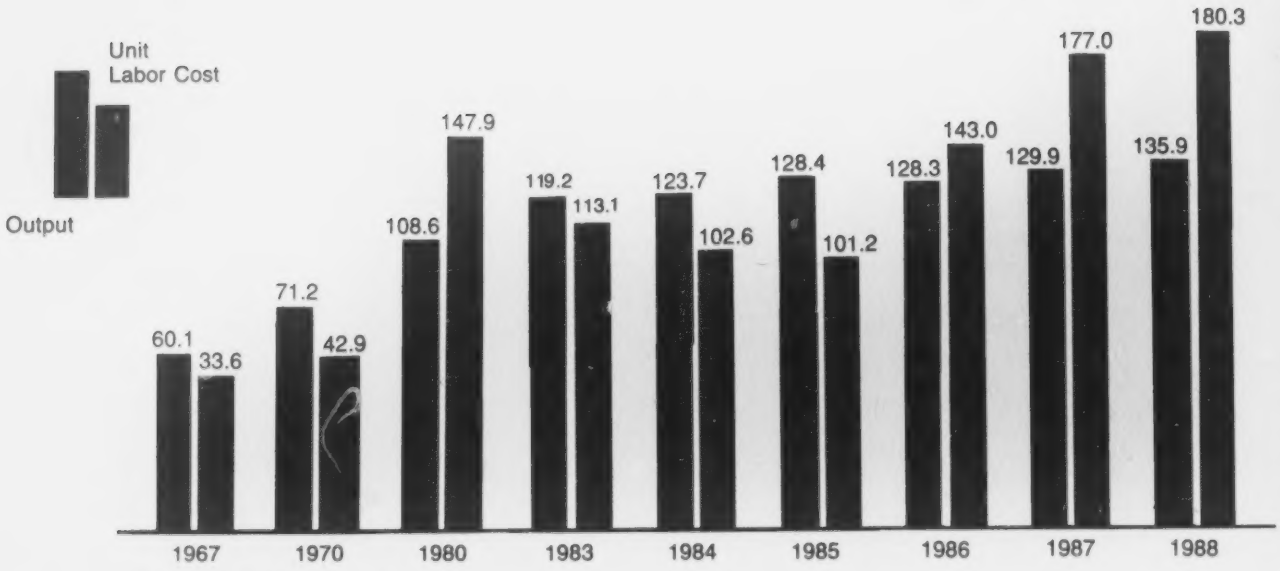
Period	Unit Labor Cost in $	Output per Man-Hour	Hourly Compensation
1967	60.6	77.4	47.0
1970	71.0	80.8	57.6
1979	117.0	101.4	118.8
1980	130.6	101.4	132.7
1981	140.1	103.6	145.8
1982	148.7	105.9	158.0
1983	145.0	112.0	162.4
1984	142.2	118.1	168.0
1985	142.7	123.6	176.4
1986	143.3	127.7	183.0
1987	141.7	132.0	186.9
1988	142.1	136.2	193.5

Source: U.S. Department of Labor

GERMANY

PRODUCTIVITY AND UNIT LABOR COST IN MANUFACTURING

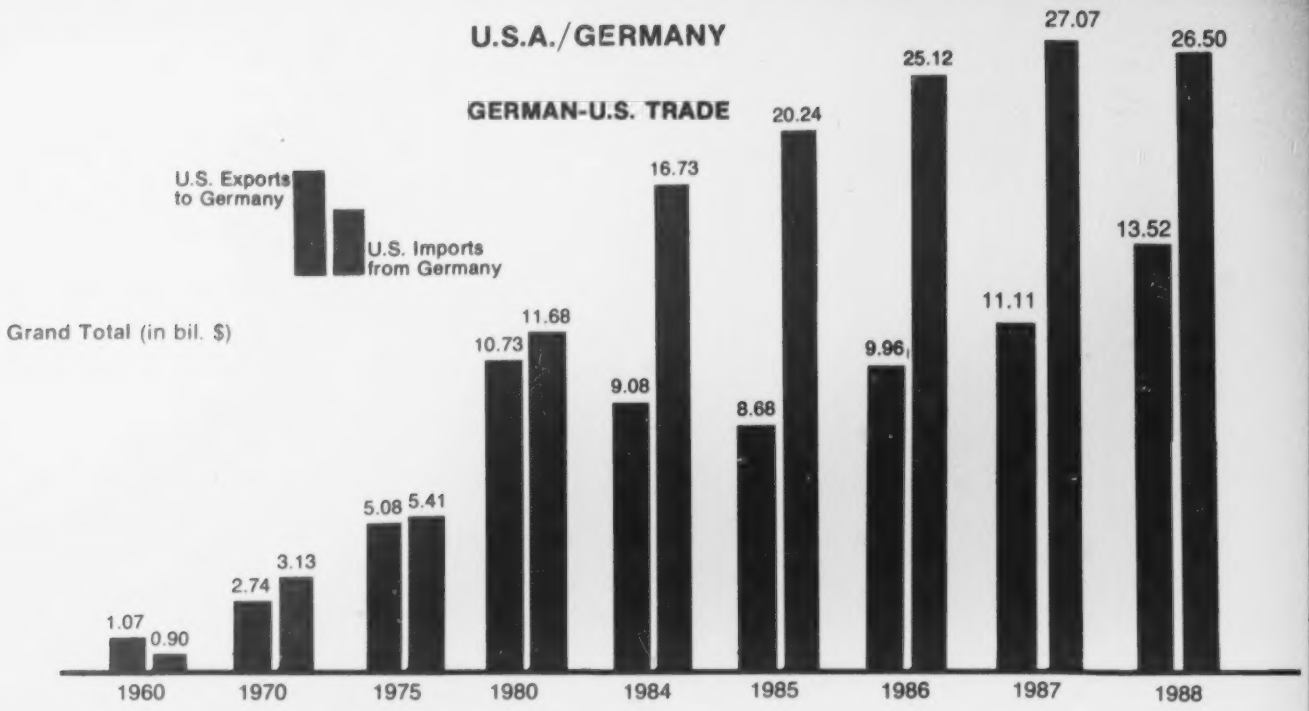
Output and Unit Labor Cost per Hour
Index: 1977 = 100
(on DM basis)



Source: U.S. Department of Labor

Period	Unit Labor Cost in $	Output per Man-Hour	Hourly Compensation
1967	33.6	60.1	34.7
1970	42.9	71.2	48.0
1978	117.9	103.1	107.8
1979	135.9	108.2	116.1
1980	147.9	108.6	125.6
1981	124.9	111.0	134.5
1982	119.7	112.6	141.0
1983	113.1	119.2	148.4
1984	102.6	123.7	155.3
1985	101.2	128.4	164.6
1986	143.0	128.3	171.5
1987	177.0	129.9	178.1
1988	180.3	135.9	185.5

Source: U.S. Department of Labor



Major Items of U.S.–German Trade (in mil. $)

U.S. Exports to Germany				U.S. Imports from Germany		
1980	1987	1988	Products	1980	1987	1988
951.1	585.8	485.9	Food and live animals	168.8	340.6	271.5
31.2	9.1	10.2	Meat and prep.	2.5	7.0	5.1
6.4	3.1	9.0	Dairy products and eggs	16.0	25.7	12.1
19.8	12.0	13.3	Fish and prep.	1.5	3.1	4.7
223.8	16.6	14.6	Cereals and prep.	6.7	26.2	22.4
291.3	225.4	265.7	Fruits and vegetables	34.3	84.1	87.4
361.6	282.9	127.0	Animal feeding stuffs	6.6	14.6	17.0
3.1	4.1	6.7	Coffee, cocoa, spices and prep.	69.3	134.6	82.4
246.0	207.3	267.4	Beverages and tobacco	145.5	193.8	190.5
—	—	—	Beer	43.4	114.8	119.5
2.0	1.2	2.0	Wine	97.3	64.3	55.7
9.7	12.5	13.8	Alcoholic beverages, distilled	—	7.7	8.6
234.1	194.8	6.7	Tobacco, raw and manufactured	2.1	3.3	1.8
1,500.3	1,100.51	267.4	Crude materials, inedible, exc. fuel	130.1	135.3	148.3
102.9	52.7	—	Hides, skins and furskins undressed	3.4	3.7	1.7
398.5	285.8	263.7	Soybeans	—	—	—
66.9	62.9	69.2	Rubber, incl. synthetic and reclaimed	3.3	19.5	20.0
134.6	—	95.2	Wood, lumber and cork	0.5	2.6	2.1
202.9	254.9	311.8	Pulp and waste paper	—	1.0	.7
101.6	145.4	157.7	Raw textile fibers and their waste	11.7	23.8	.5
84.7	44.5	58.4	Crude fertilizers and minerals	8.6	13.8	15.3
330.3	109.6	213.1	Metalliferous ores and metal scrap	88.5	31.4	.5
112.3	77.3	108.0	Nonferrous metal scrap	64.9	2.9	12.7
18.4	25.4	45.5	Vegetable materials, crude	1.8	—	13.0
216.4	62.8	76.0	Mineral fuels and lubricants	26.3	43.1	68.0
136.5	19.9	31.2	Coal, coke, briquettes, lignite, peat	4.4	.1	4.3
79.7	41.8	44.2	Petroleum and petroleum products	21.9	42.7	64.1

Source: U.S. Department of Commerce

Continued

Major Items of U.S.–German Trade (in mil. $)

U.S. Exports to Germany			Products *(continued)*	U.S. Imports from Germany		
1980	1987	1988		1980	1987	1988
35.8	10.6	18.3	Oils and fats, animal and vegetable	2.5	4.3	4.3
850.8	1,181.6	1,371.9	Chemicals	1,019.2	2,165.9	2,579.2
396.8	465.7	520.8	Organic and inorganic chemicals	512.0	1,087.6	1,1388.3
25.9	28.7	37.5	Essent. oils, perfume materials, soaps	27.6	93.7	104.6
23.4	34.7	32.9	Dyeing, tanning and coloring materials	97.2	285.7	289.7
133.1	309.0	361.8	Medicinal and pharmaceutical products	92.1	209.9	223.5
142.9	203.7	259.3	Synthetic resins and plastic materials	149.4	273.4	300.3
990.9	647.2	837.2	Manufactured goods by chief material	1,493.0	2,833.4	3,253.6
24.6	47.5	55.6	Leather	18.4	43.6	51.3
9.8	15.5	25.2	Tires and tubes for tires	82.9	218.4	130.5
127.8	99.3	114.0	Textile yarn and fabrics	90.7	291.3	282.6
77.1	74.7	88.6	Wood and cork	6.8	28.5	30.6
142.9	83.5	107.0	Paper and paperboard	21.0	249.3	310.6
47.2	37.9	44.1	Iron and steel	557.1	761.6	960.3
295.7	62.2	108.0	Nonferrous metals	202.4	361.4	420.4
180.7	166.4	221.5	Metal manufactures	284.1	595.0	686.5
49.0	26.7	32.0	Glass, Glassware, Pottery	151.3	232.7	236.0
3,916.4	5491.8	6,895.5	Machinery and transport equipment:	7,562.9	18,329.5	16,861.0
987.0	827.5	1,025.5	Electrical machines and apparatus	644.7	1,547.9	1,884.0
782.0	990.7	1,115.5	Transport equipment	3,961.6	208.0	217.4
74.2	82.8	115.0	Metalworking machinery	334.2	519.7	526.0
1,083.4	1,855.0	2,234.0	Office machines and computers	195.1	551.4	491.4
50.7	21.8	36.4	Agricultural machines	199.4	61.7	66.8
42.0	36.1	46.2	Textile and leather machinery	249.2	612.1	738.1
291.5	170.3	234.6	Other machs. for spec. industries	679.1	831.8	908.8
212.8	173.5	254.8	Telecommunications apparatus	84.4	158.7	119.3
97.2	193.6	248.0	El. medical and radiolog. apparatus	113.9	442.8	519.4
230.3	382.9	686.3	Road motor vehicles and parts	3,889.0	8,965.9	6,496.3
533.0	958.3	1,062.7	Aircraft and spacecraft and parts	48.8	165.3	168.1
1,631.0	1,265.4	1,600.4	Miscellaneous manufactured articles:	890.6	2,306.8	2,305.8
72.0	32.9	33.0	Clothing and accessories	22.9	15.1	9.8
4.5	6.4	10.7	Footwear	16.2	21.3	18.8
482.6	593.0	683.4	Prof., scientific and controlling instruments	277.4	491.5	530.8
210.6	180.7	104.2	Photo equipment, photographic supplies	52.7	172.4	135.5
3.4	1.7	2.6	Watches and clocks	52.0	70.1	70.5
68.1	126.7	209.2	Musical instruments, parts, accessories	38.5	151.2	141.4
26.0	35.6	56.1	Printed matter	36.9	83.3	80.0
52.3	62.9	101.0	Rubber and plastic manufactures	116.1	285.9	335.5
116.1	72.7	101.5	Toys, sporting goods, baby carriages	38.6	98.4	96.7
526.6	68.2	61.4	Artworks, collectors pieces, antiques, jewelry	83.8	78.7	126.5
256.5	253.0	402.3	Items not classified by kind	242.3	716.2	813.2

Source: U.S. Department of Commerce

U.S.A.

DIRECT INVESTMENT

U.S. Direct Investment Abroad (in mil. $)
(cumulative)

By Country	1970	1980	1983	1984	1985	1986	1987	1988
United Kingdom	8,016	28,460	30,851	28,635	33,963	35,692	42,031	47,991
Japan	1,482	6,225	8,059	7,920	9,095	11,332	14,279	16,868
Germany	4,313	15,415	16,008	14,794	16,746	20,846	24,792	21,673
Canada	21,015	45,119	47,553	46,830	46,435	49,994	56,879	61,244
Italy	1,464	5,397	4,790	4,592	5,644	6,935	9,008	9,075
France	2,643	9,347	6,900	6,224	7,835	8,857	11,478	12,495
Switzerland	2,631	11,280	15,065	14,865	16,230	17,842	19,973	18,672

Source: U.S. Department of Commerce

Foreign Direct Investment in the U.S.A. (in mil. $)
(cumulative)

By Country	1970	1980	1983	1984	1985	1986	1987	1988
United Kingdom	4,127	14,105	32,152	38,387	43,766	55,935	79,669	101,909
Germany	680	7,596	10,845	12,330	14,417	17,250	20,315	23,845
Japan	229	4,723	11,336	16,044	19,116	26,824	35,151	53,354
Canada	3,117	12,162	11,434	15,286	16,678	20,318	24,013	27,361

Source: U.S. Department of Commerce

GERMANY

DIRECT INVESTMENT

German Direct Investment Abroad (in mil. DM)
(annual rates)

By country	1980	1983	1984	1985	1986	1987	1988
United States	3,380.1	2,748.8	3,257.5	7,665.4	8,003	7,473	6,602
Belgium/Luxemburg	1,028.1	621.7	474.7	562.3	290	127	827
France	453.7	383.2	494.1	494.5	486	758	837
Brazil	362.7	528.6	130.2	–69.2	–42	238	224
Switzerland	542.9	614.1	211.7	38.8	473	144	876
Canada	421.5	–14.2	208.0	36.2	413	212	276
United Kingdom	171.0	1,058.0	1,091.1	2,615.6	985	1,144	1,316
Spain	228.2	448.4	533.2	52.2	1,223	289	791
Netherlands	254.8	–836.2	579.5	–33.7	1,745	116	954
Italy	212.8	162.1	207.9	1,221.7	1,151	260	914
By industry	**1980**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**
Chemicals, medical, pharmac. products	835.7	1,117.9	925.4	4,149.1	4,288	1,596	2,259
Finance	968.2	1,730.6	1,321.8	2,814.8	1,814	725	1,344
Electrical engineering	605.0	648.7	757.8	876.4	1,899	528	1,341
Motor vehicles	897.9	1,368.6	1,182.8	1,340.6	2,199	540	1,130
Mechanical engineering	807.8	1,048.6	416.5	370.7	402	565	438
Iron & Steel	224.0	–671.6	260.0	67.1	213	499	74
Petroleum	301.9	400.8	425.0	43.6	611	447	202
Insurance	233.7	247.9	276.8	2,052.2	740	1,411	2,227
Real estate	151.1	65.1	267.9	42.2	–68	32	33

Source: Deutsche Bundesbank, Germany

Foreign Direct Investment in Germany (in mil. DM)
(annual rates)

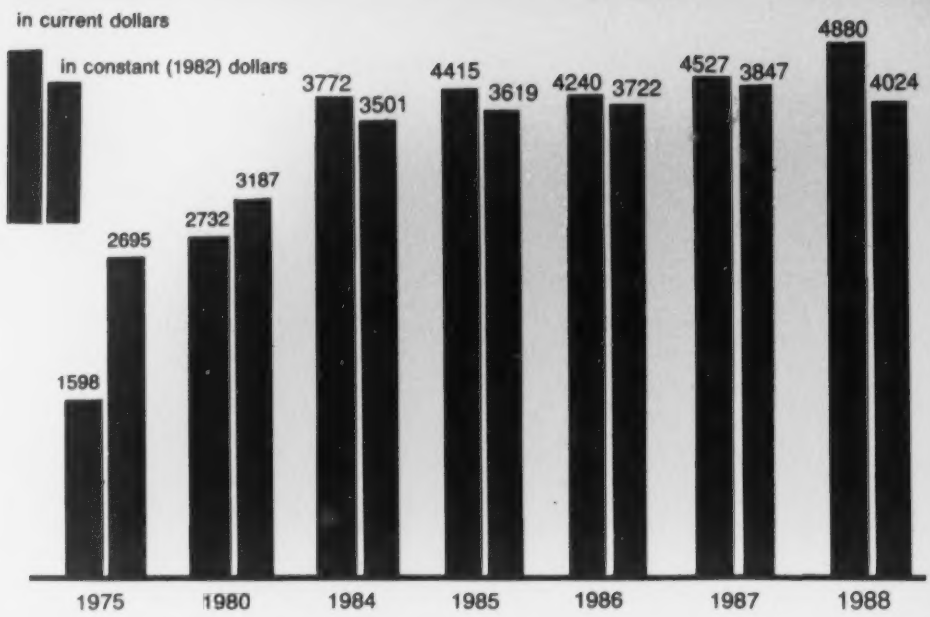
By country	1980	1983	1984	1985	1986	1987	1988
United States	172.2	1,236.2	–132.1	572.1	–412	-387	-3,062
Switzerland	88.5	901.8	285.9	536.9	750	474	486
United Kingdom	908.8	223.3	1,591.4	618.8	518	131	502
Netherlands	574.0	–753.9	86.0	773.1	898	217	831
France	175.1	352.7	359.0	93.4	356	156	432
Belgium/Luxemburg	36.1	124.3	–24.6	–18.0	–178	–32	-869
Japan	155.3	263.4	351.8	588.4	246	454	353
Sweden	104.7	272.0	1.5	7.6	16	57	232
Italy	32.0	–46.4	435.4	160.8	84	-242	187
Austria	30.0	129.9	167.6	14.6	85	–136	31
By industry	**1980**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**
Holding companies	15.2	416.2	445.8	1,380.0	2,565	739	2,740
Petrolem	298.4	–139.5	377.5	48.9	300	*	-2,272
Finance	603.0	178.1	1,407.2	1,346.6	339	576	166
Chemicals	950.9	434.1	82.2	–296.2	–848	–164	354
Electrical engineering	31.1	452.9	39.1	189.4	48	–414	-24
Mechanical engineering	213.6	408.8	338.2	59.6	–12	–279	-208
Motor vehicles	26.3	501.8	271.0	139.0	243	–643	-37
Food	–222.4	207.3	83.6	99.1	–78	507	–204
Nonferrous metals	80.2	583.6	79.8	61.3	–39	197	-5
Iron & Steel	–29.3	–1,188.7	–126.5	–39.2	*	*	4

Source: Deutsche Bundesbank, Germany
Bundesministerium fur Wirtschaft

U.S.A.

GROSS NATIONAL PRODUCT
(in bil. $)

GNP Total



Source: U.S. Department of Commerce

GNP by Type of Expenditure
(at current prices)

Period	Gross National Product	% chg. from yr. earlier	Personal Consumption	Government Consumption	Gross Private Domestic Investment	Net Exports of Goods and Services
1972	1,212.8	10.0	757.6	250.0	202.0	3.2
1973	1,359.3	12.1	837.2	266.5	238.8	16.8
1974	1,472.8	8.3	916.5	299.1	240.8	16.3
1975	1,598.4	8.5	1,012.8	335.0	219.6	31.1
1976	1,782.8	11.5	1,129.3	355.9	277.7	18.8
1977	1,990.5	11.7	1,257.3	387.3	344.1	1.9
1978	2,249.7	13.0	1,403.5	425.2	416.8	4.1
1979	2,508.2	11.5	1,566.8	467.8	454.8	18.8
1980	2,732.0	8.9	1,732.6	530.3	437.0	32.1
1981	3,052.6	11.7	1,915.1	588.1	515.5	33.9
1982	3,166.0	3.7	2,050.1	641.7	447.3	26.3
1983	3,405.7	7.6	2,234.5	675.0	502.3	–6.1
1984	3,772.2	10.7	2,430.5	735.9	664.8	–58.9
1985	4,414.9	17.0	2,629.0	820.8	643.1	–78.0
1986	4,240.3	–4.0	2,807.5	871.2	665.9	–104.4
1987	4,526.7	7.0	3,012.1	924.7	712.9	–123.0
1988	4,880.6	7.8	3,235.1	968.9	750.3	NA

Source: U.S. Department of Commerce

GNP by Type of Expenditure
(at constant 1982 prices)

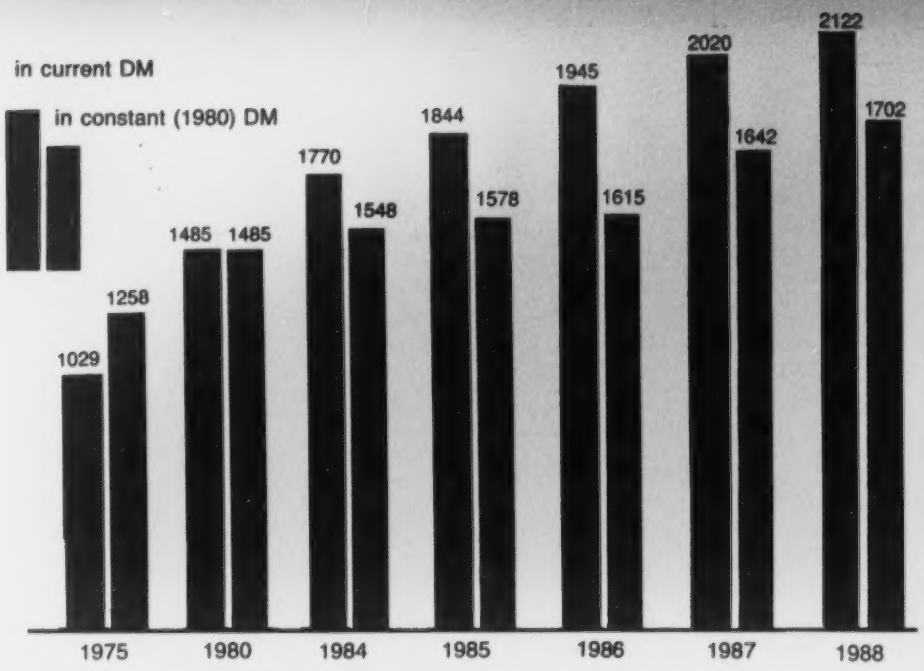
Period	Gross National Product	% chg. from yr. earlier	Personal Consumption	Government Consumption	Gross private domestic investment			Net Exports of Goods and Services
					Nonresidential fixed	Residential fixed	Change in business inventories	
1972	2,608.5	5.0	1,621.9	570.7	277.0	166.6	21.8	–49.5
1973	2,774.1	5.2	16,89.6	565.3	317.3	163.4	40.0	–31.5
1974	2,729.3	–.5	1,674.0	573.2	317.8	130.2	33.3	0.8
1975	2,695.0	–1.3	1,711.9	580.9	281.2	114.9	–12.8	18.9
1976	2,826.7	4.9	1,803.9	580.3	290.9	140.8	22.1	–11.0
1977	2,958.6	4.7	1,883.8	589.1	324.0	168.1	29.1	–35.5
1978	3,115.2	5.3	1,961.0	604.4	362.1	178.0	36.8	–26.8
1979	3,192.4	2.5	2,004.4	609.1	389.4	170.8	15.0	3.6
1980	3,187.1	–.2	2,000.4	620.5	379.2	137.0	–6.9	57.0
1981	3,248.8	1.9	2,024.2	629.7	395.2	126.5	23.9	49.4
1982	3,166.0	–2.5	2,050.7	641.7	366.7	105.1	–24.5	26.3
1983	3,279.1	3.6	2,146.0	649.0	361.2	149.3	–6.4	–19.9
1984	3,501.4	6.8	2,249.3	677.7	425.2	170.9	62.3	–84.0
1985	3,618.7	3.4	2,354.8	731.2	453.5	174.4	7.4	–104.3
1986	3,721.7	2.8	2,455.2	760.5	433.1	195.0	13.8	–137.5
1987	3,847.0	3.4	2,521.0	780.2	445.1	195.2	18.1	–128.9
1988	4,024.4	4.6	2,598.4	785.1	493.8	194.1	4.2	n.a.

Source: U.S. Department of Commerce **Note: For 1984, 1985, and 1986 GNP in constant (1982) dollars*

GERMANY

GROSS NATIONAL PRODUCT
(in mil. DM)

GNP Total



Source: Statistisches Bundesamt, Germany

GNP by Type of Expenditure (in mil. DM)
(at current prices)

Period	Gross National Product	% chg. from yr. earlier	Personal Consumption	Government Consumption	Investment	Net Exports of Goods and Services
1960	303.0	11.7	171.8	40.5	73.6	60.7
1970	675.7	13.0	368.9	106.5	172.1	152.9
1974	985.6	7.3	533.7	190.2	212.7	279.0
1975	1,029.4	4.4	585.3	210.0	209.4	271.2
1976	1,126.2	9.4	632.5	221.7	225.7	309.0
1977	1,199.2	6.5	683.2	235.0	242.4	325.8
1978	1,291.6	7.7	728.9	252.9	266.0	344.7
1979	1,396.6	8.1	785.0	273.3	303.4	377.4
1980	1,485.2	6.3	840.8	297.8	335.8	422.3
1981	1,545.1	4.0	887.9	318.2	335.2	482.1
1982	1,597.1	3.4	918.1	326.2	326.9	517.5
1983	1,680.4	5.2	964.2	336.2	343.8	524.8
1984	1,769.9	5.3	1,003.6	350.2	354.6	590.8
1985	1,844.3	4.2	1,038.3	365.7	360.8	647.5
1986	1,945.2	5.5	1,068.6	382.7	377.4	638.2
1987	2,017.7	3.7	1,112.7	397.0	390.0	638.7
1988	2,121.7	5.2	1,156.8	411.5	418.1	687.8
1989 I	1,084.7	7.0	584.3	194.1	215.9	385.4

Source: Statistisches Bundesamt, Germany

GNP by Type of Expenditure
(at constant 1980 prices)

Period	Gross National Product	% chg. from yr. earlier	Personal Consumption	Government Consumption	Investment	Net Exports of Goods and Services
1960	731.7	—	370.6	137.5	189.9	120.9
1970	1,134.0	5.0	606.8	211.9	291.9	248.4
1974	1,276.5	0.2	691.5	253.4	286.4	348.0
1975	1,258.0	–1.4	713.9	262.8	271.3	324.6
1976	1,328.2	5.6	740.4	266.8	281.0	356.7
1977	1,363.4	2.7	771.8	270.4	291.1	368.5
1978	1,407.9	3.3	801.5	280.8	304.7	383.7
1979	1,463.6	4.0	830.4	290.3	326.7	401.0
1980	1,485.2	1.5	840.8	297.8	335.8	422.3
1981	1,485.3	0.0	836.4	303.3	319.7	456.7
1982	1,471.0	–0.1	825.2	300.7	302.9	471.5
1983	1,498.9	1.9	839.6	301.4	312.4	469.0
1984	1,548.1	3.3	852.3	308.8	314.9	511.1
1985	1,578.1	1.9	864.0	315.3	315.1	545.7
1986	1,614.7	2.3	893.4	323.4	325.4	545.9
1987	1,641.9	1.7	924.8	328.1	332.4	550.5
1988	1,701.8	3.6	949.9	335.4	352.2	582.4
1989 I	862.0	4.6	465.1	162.7	177.2	319.8

Source: Statistisches Bundesamt, Germany

GERMANY / U.S.A.

CURRENCY EXCHANGE RATES

Average Exchange Rates
(value of $1.00 in DM)

Annual Average	
1975	DM 2.46
1977	2.32
1978	2.01
1979	1.83
1980	1.82
1981	2.25
1982	2.43
1983	2.56
1984	2.85
1985	2.94
1986	2.17
1987	1.80
1988	1.76
1989	1.88

Source: Deutsche Bundesbank

Monthly Average		
1987	Jan.	DM 1.8581
	Feb.	1.8265
	March	1.8339
	April	1.8110
	May	1.7863
	June	1.8184
	July	1.8470
	Aug.	1.8581
	Sept.	1.8129
	Oct.	1.8021
	Nov.	1.6812
	Dec.	1.6332
1988	Jan.	1.6517
	Feb.	1.6976
	March	1.6780
	April	1.6733
	May	1.6934
	June	1.7557
	July	1.8440
	Aug.	1.8874
	Sept.	1.8669
	Oct.	1.8215
	Nov.	1.7497
	Dec.	1.7555
	Jan.	1.8304
	Feb.	1.8521
	March	1.8653
	April	1.8704
	May	1.9503
	June	1.9809
	July	1.8941
	Aug.	1.9260
	Sept.	1.9526
	Oct.	1.8665

Source: Deutsche Bundesbank

1. Note that CPI still on basis year 1980; basis year 1985 not yet available.

Ratio of Savings to Disposable Personal Income (percent)
U.S.A.

1980	7.1
1981	7.5
1982	6.8
1983	5.4
1984	6.3
1985	5.1
1986	4.0
1987	3.2
1988	4.1

Source: U.S. Department of Commerce,

Ratio of Savings to Disposable Personal Income (percent)
Germany

1980	14.0
1981	14.8
1982	13.8
1983	12.2
1984	12.8
1985	12.7
1986	13.5
1987	13.6
1988	13.9

Source: Deutsche Bundesbank

IMPORTANT GERMAN CORPORATE INVESTORS IN THE USA

GERMAN FIRM	MOST IMPORTANT U.S. AFFILIATE OR PARTICIPATION	PERCENT SHARE	NUMBER OF EMPLOYEES
Bayer	Mobay Chemical	100	5,929
	Miles Laboratories	100	13,000
	Helena Chemical	100	773
	Agfa-Gevaert Corp.	100	1,400
	Other Companies	100	3,000
Bertelsmann AG	Bertelsmann, Inc.	100	10,320
	Bantam Doubleday Dell Publishing Group	100	
	Bertelsmann Music Group	100	
	Bertelsmann Printing and Manufacturing Corp.	100	
	Doubleday Book and Music Clubs	100	
	Doubleday Book Shops	100	
	Gruner & Jahr USA Publishing	100	
BASF	BASF Corporation	100	21,770
Hoechst	Hoechst Celanese Corp.	100	24,300
Siemens AG	Siemens Corporation	100	30,735
	Siemens Energy and Automation	100	
	Siemens Components, Inc.	100	
	Siemens Communications Systems, Inc.	100	
	Siemens KWU, Inc.	100	
	Osram Corporation	100	
	Graphic Systems, Inc.	100	
Thyssen Group	Budd Co.	100	n.a.
Daimler-Benz Group	Freightliner	100	5,800
Henkel KGaA	Clorox	27	5,600
	Henkel Corp.	100	3,000
Tengelmann Group	Great A&P Tea	52.5	83,000
Franz Haniel & Cie	Scrivner Inc.	100	4,000
Otto Versand	Spiegel Inc.	100	6,000

Information Sources . . .

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German Information Center
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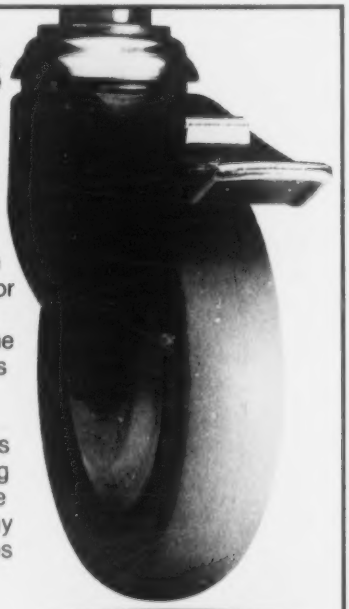

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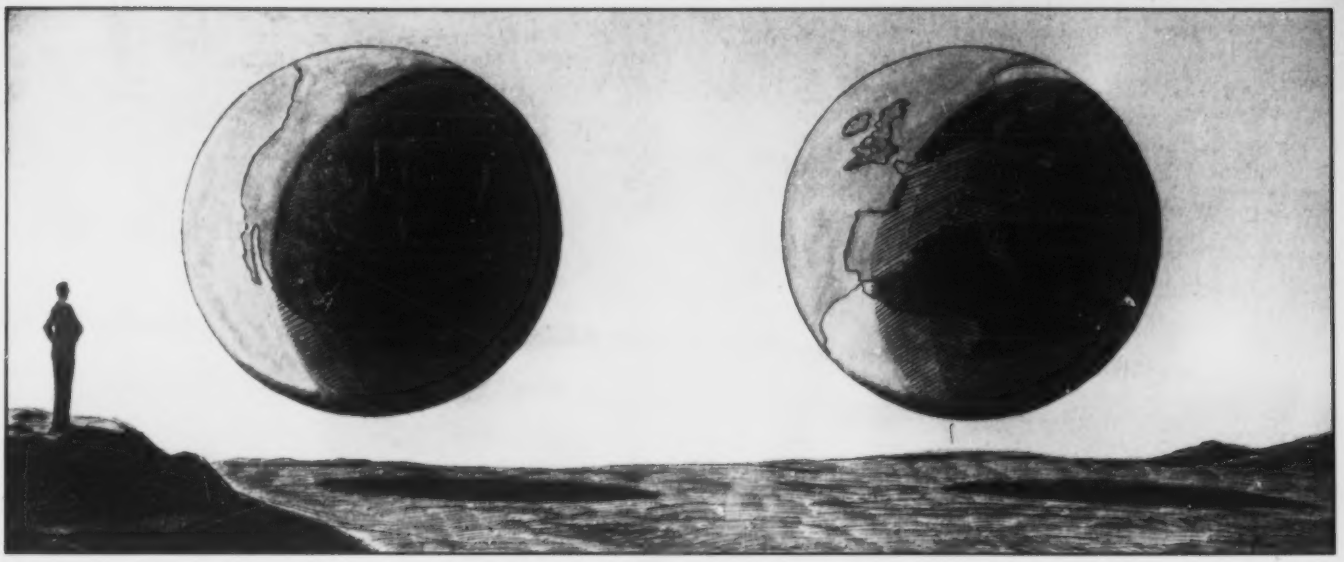

American ingenuity and German precision engineering. Nixdorf offers the Best of Both Worlds.

Nixdorf makes it possible for corporations to conduct business simultaneously on both sides of the globe, by offering comprehensive solutions developed and perfected in 52 countries on five continents.

To compete effectively in the world economy requires competence in dealing with different languages, different currencies, different customs, and different ways of doing business.

No one understands this better than Nixdorf. We have installed over 240,000 computer systems for more than 80,000 clients around the world, in 150 different vertical industries, and provided service and follow-up to all of them.

In the process, we have learned much that can help a North American company do business around the world.

We started with a basic philosophy which allowed companies to access the power of the computer at the workstation level, and expanded it to encompass all of the functions that people expect computers to perform.

We developed intra-national networks, international networks, telecommunications, data processing, computer enhanced design systems, word processing and office management systems, retail and banking systems, government systems, manufacturing systems—in short, everything that organizations expect from a world-class computer company.

We back everything we do with service. More than 70% of our employees provide service support, a very high percentage for a computer manufacturer.

And we learned an important lesson as we grew: No one country has a monopoly on genius, intuition, business intelligence, or ability.

So we adopted an eclectic approach, and borrowed the best from wherever we found it.

From America, we borrowed ingenuity, and combined it with German precision engineering.

In short, the Best of Both Worlds.

Which we would like to introduce you to.

Nixdorf Computer Corporation
300 Third Avenue Waltham, MA 02154
Tel.: (617) 890-3600

American ingenuity and German precision engineering
The Best of Both Worlds

NIXDORF
COMPUTER

HEARING SPECIALISTS.

THE WAY WE TALK BUSINESS IS BY LISTENING.

One thing a shipping company can't afford to be is hard of hearing. That's why our lines of communication are wide open. We work person-to-person with you to understand the problems unique to your business. And you always have someone to talk to about your questions and concerns. Someone who understands your business. That's because our sales, operations and traffic departments listen to each other.

In fact, we're such good listeners that we'll keep in touch after you've shipped with us to find out how it went.

We see ourselves and our vendors as global working partners with you. If that's the kind of service you need, call us. We're all ears.

OOCL

Dedicated to Quality Service

Why flying to Munich is considerably different than flying to Muncie.

Many domestic airlines have begun to fly across the Atlantic. But an airline used to shorter flights still has much to learn about travelling overseas.
On longer flights, passengers expect not just more service, but a different level of service. Food becomes far more important: ordinary airline meals just won't do. The environment has to be equally comfortable for working or sleeping, and cabin attendants must be consistently sensitive to every passenger's needs, for every hour of the trip.
In short, a trip to Munich shouldn't feel like a long trip to Muncie.
That's why we suggest, when you're flying to Germany and beyond, take the airline that understands longer flights.

People expect the world of us.

Lufthansa

Lufthansa is a participant in the mileage programs of United, Delta, USAir and Continental/Eastern. See your Travel Agent for details.